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Master in Business Administration (MBA)

Master's Dissertation



The adoption of the International Financial Reporting Standard 9 (IFRS 9): Its Main Aspects, its Effects on Financial Stability and its Impact on the Three Significant Institutions Operating in Cyprus

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Summary

The International Financial Reporting Standard 9 (“IFRS 9”) emerged from the aftermath of the global financial crisis, aiming to address the shortcomings of preceding accounting standards, particularly with respect to the valuation of financial instruments. The shift from the incurred loss model used by International Accounting Standard 39 to the IFRS 9’s Expected Credit Loss (“ECL”) model constituted a shift in paradigm. The IFRS 9 mandates the forward-looking recognition of ECLs over the time horizon of twelve months on financial assets carried at amortised cost, despite the lack of credit loss or trigger events and in case the financial asset exhibits a significant increase in credit risk, the recognition of ECLs over the lifetime of the asset.

The adoption of the IFRS 9 is of particular importance to Cyprus credit institutions since they are required by law to follow the International Accounting Standards adopted by the European Union (“EU”). More importantly, the nature of their operations entails the holding of significant amounts of financial assets and financial liabilities. As a result, they are exposed to significant levels of credit risk, particularly when the idiosyncrasies of the Cyprus financial landscape are taken into consideration. When this risk materialises, or when credit institutions recognise credit loss allowances against this risk, their prudential capital position is deteriorated directly. As such, the transition to the IFRS 9 had a more profound effect on credit institutions compared to non-financial entities.

Based on the above and because of the important role of credit institutions in financing the real economy, the transition to the IFRS 9 entails financial stability considerations. The day-one effect on EU credit institutions of the adoption of the was a reduction of 47 basis points on average of their common equity tier 1 (“CET 1”) capital ratio. To counter this reduction, credit institutions might deleverage (sell-off assets) or reduce their lending to the real economy. Studies also suggest that despite of its intentions to the contrary, the IFRS 9 might lead credit institutions to act procyclically because of its forward looking ECL model. Regardless of the above, it is argued that the IFRS 9 could be less procyclical than its predecessor, may lead to improved loan pricing and could incentivise credit institutions to grant shorter term loans.

In terms of the impact of the adoption of IFRS 9 on the three Significant Institutions (“SIs”) operating in Cyprus, the study shows a somehow mixed picture. On the first day of the adoption

of the IFRS 9, all three SIs had a sizable increase in their credit loss allowances due to the remeasurement of opening credit loss allowances using the IFRS 9's ECL model. The opening credit loss allowances of Bank of Cyprus Public Company Ltd ("BoC") increased by 8.3%, those of Hellenic Bank Public Company Ltd ("HB") increased by 2.9%, while RCB Bank Ltd ("RCB") experienced an increase of opening credit loss allowances of 46.5%, albeit from a very low base. Both BoC and HB adopted the transitional provisions for the phasing-in of the impact of the adoption of the IFRS 9 for prudential purposes, whereas RCB opted not to use transitional provisions for prudential purposes. The day-one adverse impact of the adoption of the IFRS on BoC's prudential CET 1 capital ratio was estimated at 158 basis points, on HB's prudential CET 1 capital ratio the total impact was estimated at 98 basis points, whereas the impact on RCB's prudential CET1 capital ratio was estimated to be 38 basis points, albeit the calculation for RCB entails some caveats. None of the three SIs exhibited an observable shift in its provisioning practices due to the adoption of the IFRS 9, although conclusions cannot be drawn with confidence, since BoC and HB underwent significant structural changes during the period under review.

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Contents

| | |
|---|-----|
| List of abbreviations..... | vii |
| 1 Introduction..... | 1 |
| 2 Description of the International Financial Reporting Standard 9 (IFRS 9)..... | 3 |
| 2.1 The emergence of the IFRS 9..... | 3 |
| 2.2 Main provisions of the IFRS 9..... | 4 |
| 2.3 The Expected Credit Loss (ECL) model of the IFRS 9..... | 5 |
| 2.4 The move from the International Accounting Standard 39 (IAS 39) to IFRS 9..... | 6 |
| 3 Why IFRS 9 Matters for Cyprus Credit Institutions..... | 8 |
| 3.1 Accounting framework of credit institutions in Cyprus..... | 8 |
| 3.2 Operations of credit institutions..... | 9 |
| 3.3 Risks faced by credit institutions..... | 10 |
| 3.4 Structural features of the Cyprus financial sector and the Cyprus foreclosure framework 11 | |
| 3.5 Regulatory treatment of retained earnings..... | 13 |
| 3.6 Regulatory treatment of credit loss allowances..... | 14 |
| 4 Effects of the IFRS 9 on Financial Stability..... | 16 |
| 4.1 First time adoption of the IFRS 9..... | 16 |
| 4.2 Procyclicality resulting from the ECL model..... | 22 |
| 4.3 Lending behaviour..... | 25 |
| 4.4 Too much, too soon?..... | 26 |
| 5 Case study on Significant Credit Institutions (SIs) in Cyprus..... | 28 |
| 5.1 Bank of Cyprus Public Company Ltd..... | 30 |
| 5.2 Hellenic Bank Public Company Ltd..... | 37 |
| 5.3 RCB Bank Ltd..... | 43 |
| 6 Epilogue..... | 47 |
| Bibliography..... | 49 |

List of abbreviations

| | | | |
|-------|---|--------|--|
| APS | Asset Protection Scheme | IAS 39 | International Accounting Standard 39 |
| BoC | Bank of Cyprus Public Company Ltd | IASB | International Accounting Standards Board |
| CCB | Cyprus Cooperative Bank Ltd | IFRS | International Financial Reporting Standard |
| CET 1 | Common Equity Tier 1 | IFRS 9 | International Financial Reporting Standard 9 |
| ECB | European Central Bank | IRB | Internal Ratings Based |
| ECL | Expected Credit Loss | IT | Information Technology |
| EEA | European Economic Area | LGD | Loss Given Default |
| EU | European Union | LSI | Less Significant Institution |
| FA | Financial Asset | NPL | Non-Performing Loan |
| FL | Financial Liabilities | PIT | Point-In-Time |
| FVOCI | Fair Value through Other Comprehensive Income | POCI | Purchased or Originated Credit Impaired |
| GAAP | Generally Accepted Accounting Practices | RCB | RCB Bank Ltd |
| GDP | Gross Domestic Product | SA | Standardised Approach |
| GFC | Global Financial Crisis | SI | Significant Institution |
| HB | Hellenic Bank Public Company Ltd | TTC | Through-The-Cycle |

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Chapter 1

Introduction

The International Financial Reporting Standard 9 (“IFRS 9”) emerged from the aftermath of the global financial crisis (“GFC”) aiming to address the shortcomings of preceding accounting standards, particularly with respect to the valuation of financial instruments. The approach introduced by the IFRS 9 to calculate credit loss allowances constituted a significant departure from the status quo. The IFRS 9 moves away from the backward-looking approaches to calculate credit loss allowances on Financial Assets (“FA”) that were reliant on trigger events and instead, mandates a forward-looking assessment of future Expected Credit Losses (“ECLs”) over time horizons that span from twelve months, up to the lifetime of the FA.

The shift to the forward-looking assessment came with implementation challenges and side effects. This Master’s Dissertation focuses on the on how the implementation of the IFRS 9 might have affected the financial sector and in particular, whether the implementation has led to a tangible shift in the practices followed by the three Cyprus Significant Institutions (“SIs”) for calculating their credit loss allowances, these being Bank of Cyprus Public Company Ltd, Hellenic Bank Public Company Ltd and RCB Bank Ltd.

To pursue the above objectives, this Master’s Dissertation introduces the basic principles of the IFRS 9 that are relevant to the topic and describes why the IFRS 9 is of particular importance for credit institutions. The brief review of the available literature on the financial

stability impact of the IFRS 9 is followed by a focused analysis of the available disclosures in the published financial statements and Pillar III disclosures of the three Cyprus SIs, with the aim to isolate the effects of the adoption of the IFRS 9 on the opening reserves, levels of credit loss allowances, and ultimately, the prudential capital position of the three Cyprus SIs.

The structure of this Master's Dissertation is as follows: In Chapter 2, a description of the IFRS 9 is provided, touching upon how the IFRS 9 emerged, what are the main provisions of the IFRS 9, including its ECL model and the transition from the International Accounting Standard 39 ("IAS 39") to the IFRS 9. In Chapter 3, the discussion focuses on why the IFRS 9 is important for credit institutions in Cyprus, by touching upon the accounting framework in Cyprus, the operations of credit institutions, the main risks they are exposed to, the structural features of the Cyprus financial landscape, and the regulatory treatment of credit institutions' retained earnings and credit loss allowances. In Chapter 4, the effects of the IFRS 9 on financial stability are discussed, with a particular focus on the effects of the first-time adoption of the IFRS 9 on credit institutions and the potential procyclical nature of the IFRS 9. Chapter 5 includes a case study of the actual effects of the introduction on the IFRS 9 on the three Cyprus SIs. The case study focuses on the adjustments on the opening reserves of the SIs as a result of the adoption of the IFRS 9, the effects of the adoption on the prudential capital position of these SIs, and the practices they follow for calculating credit loss allowances. Chapter 6 includes the main conclusions of this Master's Dissertation.

Chapter 2

Description of the International Financial Reporting Standard 9 (IFRS 9)

2.1 The emergence of the IFRS 9

The GFC highlighted the ineffectiveness of accounting standards in terms of the valuation of financial instruments, which materialised in pro-cyclical effects (European Systemic Risk Board, 2017). One aspect in particular became apparent, that the approaches of existing accounting standards did “too little, too late” with respect to recognising credit loss allowances on FAs. As such, the Leaders of the G20 called upon accounting standard setters to improve accounting standards in terms of credit loss allowances, in particular loan loss provisions, valuation uncertainties and off-balance sheet exposures (IFRS Foundation, 2009). The International Accounting Standards Board (“IASB”) of the IFRS Foundation acted upon the mandate received, and in November 2009 issued certain chapters of the new IFRS 9, namely those relating to the classification, and measurement of FAs (IFRS Foundation, 2022a). The complete version of IFRS 9 was issued by the IASB in July 2014, and the standard would apply for annual periods beginning on or after 1 January 2018 (International Accounting Standards Board, 2018).

2.2 Main provisions of the IFRS 9

As it is stated in the standard itself, the main intention of IFRS 9 is “to establish principles for the financial reporting of FAs and financial liabilities (“FL”) that will present relevant and useful information to the users of financial statements for their assessment of the amounts, timing and uncertainty of an entity’s future cash flows” (International Accounting Standards Board, 2018). More specifically, the IFRS 9 covers the recognition and derecognition of FAs and FLs, their classification, their measurement, and provisions regarding the treatment of FAs and FLs in case of hedge accounting (International Accounting Standards Board, 2018).

For the purposes of this Master’s Dissertation, the provisions of the IFRS 9 in relation to the measurement of FAs are relevant. According to the IASB (2018) “a contractual right to receive cash or another financial asset from another entity” is considered a FA in the context of IFRS 9. Consequently, loans and advances granted by credit institutions to customers meet the definition of a FA and should be treated as such for financial reporting purposes. Their subsequent measurement is dependent on conditions stipulated in the IFRS 9, that relate to the nature of the FA and the business model of the reporting entity. Simple debt instruments, such as loans and advances, under normal circumstances are expected to meet the first condition stipulated in the IFRS 9, that is whether the “contractual terms of the FA give rise on specified dates to cash flows that are solely payments of principal and interest” (International Accounting Standards Board, 2018). Debt instruments that are held by the reporting entity with the intention of collecting the contractual cash flows are meet the so called “business model” condition (International Accounting Standards Board, 2018). In case both the above conditions are met, the debt instrument must be classified at amortised cost (International Accounting Standards Board, 2018).

Under the amortised cost classification of the IFRS 9, FAs are carried in the financial statements of the reporting entity at the amount that the FAs were initially recognised (being their fair value, minus transaction costs), minus repayments, plus or minus the

cumulative amortisation using the effective interest rate method, adjusted for any loss allowance for ECLs (International Accounting Standards Board, 2018).

2.3 The Expected Credit Loss (ECL) model of the IFRS 9

The calculation of the loss allowance for FAs carried at amortised cost under the IFRS 9 is carried out using the ECL model described in the standard. At each reporting date, the reporting entity shall calculate the amount of ECLs (Internal Accounting Standards Board, 2018). The time horizon taken into account when calculating ECLs depends on the whether the FA exhibited significant increase in its credit risk since its original inception. In case the FA exhibited significant increase in its credit risk since its initial recognition, the entity recognises the total amount of “lifetime ECLs” as loss allowance, otherwise, the entity shall only recognise an amount of “twelve month ECLs” as credit loss allowance (International Accounting Standards Board, 2018).

While the IFRS 9 does not explicitly defines the above approach as such, in practice, FAs carried at amortised cost are grouped into three distinctive groups, referred to as “Stages”, in accordance with the perceived increase in their credit risk since their initial inception. “Stage 1” includes FAs that do not exhibit significant increase in their credit risk since initial recognition. “Stage 2” includes FAs that do exhibit significant increase in their credit risk, whereas “Stage 3” includes credit impaired FAs, i.e. FAs that exhibit materialised increase their credit risk.

In addition to the magnitude of the credit losses to be recognised and provided for, the specific Stage that a FA carried at amortised cost is classified to also impacts the amount of interest income on that FA to be recognised by the reporting entity. In particular, for Stage 1 FAs and for Stage 2 FAs, the reporting entity calculates the effective interest on the gross amount of the FA, whereas for Stage 3 FAs, the effective interest is calculated

on the carrying amount of the FA, that is, after deducting credit loss allowances (International Accounting Standards Board, 2018).

It is evident from the above that the amount of ECLs recognised as loss allowance and the interest income on the FA are driven by the estimated increase in credit risk. Consequently, the IFRS 9 offers further guidance on how the significant increase of credit risk is to be determined. In particular, it is noted that the reporting entity “shall use the change in the risk of a default occurring over the expected life of the financial instrument, instead of the change in the amount of expected credit losses” (International Accounting Standards Board, 2018). The IFRS 9 further stipulates that the reporting entity shall not exclusively on “past due” information, but instead, if available, the entity shall make use of “forward-looking” information including macroeconomic variables.

2.4 The move from the International Accounting Standard 39 (IAS 39) to IFRS 9

The implications of the treatment stipulated in the IFRS 9 are significant, particularly when contrasted against the treatment in the IAS 39 that preceded the IFRS 9. Under the IAS 39, the requirement for the recognition of credit losses on FAs was explicitly reliant on a “trigger event”, i.e., the reporting entity should have had objective evidence of impairment of the FA in order to recognise credit losses (International Accounting Standards Board, 2010). This objective evidence of impairment was defined in the IAS 39 using examples of certain “loss events”, these being among others, significant financial difficulty of the borrower, breach of contract or adverse changes in the payment status of the borrower (International Accounting Standards Board, 2010).

The treatment of credit losses for Stage 3 FAs under the IFRS 9 is analogous to the incurred loss model of the IAS 39, since Stage 3 FA are those that exhibit observable evidence of impairment. Consequently, the IFRS 9 results in increased credit loss allowances for Stage 1 and Stage 2 FAs, whereas for Stage 3 FAs, credit loss allowances

are expected to be at par with the IAS 39 (Gornjak, 2020). The difference between the IAS 39 and the IFRS 9 is particularly large for Stage 2 FAs, where under the IFRS 9 the reporting entity must recognise “lifetime ECLs” instead of only the “twelve month” ECLs” that is required for Stage 1 FAs.

The move from the “incurred loss” approach under the IAS 39 to the forward looking, expected approach of the ECL of the IFRS 9 was deemed necessary to address the concerns emerged during the GFC with respect to the late and incomplete recognition of credit losses under the IAS 39 (European Systemic Risk Board, 2017).

Chapter 3

Why IFRS 9 Matters for Cyprus Credit Institutions

3.1 Accounting framework of credit institutions in Cyprus

While the European Union (“EU”) has adopted the use of the International Financial Reporting Standards (“IFRSs”), the mandatory use of the IFRSs, as required at an EU level, is limited to entities whose securities are traded in a public market (Regulation (EC) No 1606/2002). EU member states may adopt at the national level the use of IFRSs for entities that do not have securities listed on public exchanges, or may opt to use national Generally Accepted Accounting Practices (“GAAP”). In the case of Cyprus, all limited liability companies established in the Republic of Cyprus, including credit institutions, are required by law to use the IFRSs, irrespective of whether their securities are listed on public exchanges (Law 167(I)/2003).

Further to the above, new IFRSs, amendments to IFRSs and IFRS interpretations need to be endorsed by the EU before they come into force in the EU (Regulation (EC) No 1606/2002). Regulation (EC) No 1606/2002 sets out the criteria and the procedure for the adoption IFRSs into EU legislation, for which the European Commission has the overall responsibility. IFRSs that are endorsed by the EU are included in the Regulation (EC)

No 1126/2008 and are published in the Official Journal of the EU. Consequently, EU entities that are required or have elected to follow the IFRSs, can only follow the IFRSs that are adopted by the EU through the endorsement process and not the IFRS as they are issued by the IASB. Currently, the EU has adopted with some limited modifications all IFRSs, except for IFRS 14 (IFRS Foundation, 2022b).

Based on the above, credit institutions established in Cyprus are required to use the IFRSs when preparing their financial statements. Consequently, with the adoption of the IFRS 9 by the EU, all Cyprus credit institutions had to use the IFRS 9 for the recognition, classification, measurement and derecognition of their FAs and FLs.

3.2 Operations of credit institutions

Irrespective of whether credit institutions are required to follow the IFRSs or have elected to do so, the adoption of the IFRS 9 is of particular importance to them due to credit institutions' operations. By their nature, the operations of credit institutions involve the holding of significant amounts of FAs and FLs.

More specifically, financial intermediation, which is the main operation of credit institutions, involves the borrowing of funds from a large number of economic agents, predominantly in the form of demand deposits with the aim of providing funding to consumers, in the form of debt instruments (Gorton and Winton, 2002). As such, financial intermediation gives rise to financial instruments both on the asset side and the liability side of credit institutions' balance sheets.

The effect of financial intermediation is evident on the balance sheet structure of the Cyprus SIs under study¹, whereby based on their annual financial statements, on average, 96% of their assets consists of FAs, and on average 98% of their liabilities consists of FLs

¹ Bank of Cyprus Public Company Ltd, Hellenic Bank Public Company Ltd and RCB Bank Ltd.

(Bank of Cyprus Public Company Ltd, 2022a, Hellenic Bank Public Company Ltd, 2022a and RCB Bank Ltd, 2021a). According to the European Banking Authority (2022), on average for the European Economic Area (“EEA”), 95% of credit institutions’ assets consists of FAs, of which 79% is financial assets carried at amortised cost. As a result, a dominant part of the credit institutions’ assets is treated for accounting purposes under the provisions of the IFRS 9, and are subject to recognition of credit loss allowances under the ECL model.

3.3 Risks faced by credit institutions

Financial intermediation also exposes credit institutions to a variety of risks. The most notable of these risks, is the risk of a counterparty of an asset defaulting on their obligation to repay the credit institution, commonly referred to as “credit risk”. Credit risk is particularly prominent for long term loans and receivables, since the uncertainty associated with longer term assets often manifest itself in the form of credit risk.

Regulators and standard setters, acknowledging the risks involved in financial intermediation, categorised these risks and addressed them by enacting prudential requirements for them. Depending on the nature of these risks, prudential requirement can take the form of capital requirements, that is, setting aside capital to address the risks, disclosure requirements or other limits on the exposures towards such risks. In particular, the Basel III prudential framework foresees specific capital requirements for credit institutions to address credit risk, market risks and operational risk, whereas hard limits are imposed for liquidity risk (in the form of limits to the liquidity coverage ratio and the net stable funding ratio), concentration risk (in the form of limit to large exposures) and excessive leverage (Bank of International Settlements, 2022).

Analysing how the capital requirements are fulfilled for each risk category as per the Basel III framework, provides an indication of the relative magnitude of the risks that credit institutions are exposed to. Focusing on the three the Cyprus SIs under study, capital

requirements for mitigating credit risks constituted on average 85% of their total capital requirements based on their annual Pillar III disclosure reports (Bank of Cyprus Public Company Ltd, 2022b, Hellenic Bank Public Company Ltd, 2022b and RCB Bank Ltd, 2021b). As such, it is evident that for the operations of the Cyprus SIs, credit risk is of particular importance. Cyprus SIs are not unique in this respect, since according to the European Banking Authority (2022), on average for the EEA, credit risks accounted for 82% on the banking sector's capital requirements on 30 June 2022.

Based on the above, one could expect that the IFRS 9's ECL model will be of particular importance when accounting for the large amount of FAs in the balance sheet of credit institutions.

3.4 Structural features of the Cyprus financial sector and the Cyprus foreclosure framework

The peculiarities of the Cyprus banking sector could have made the implementation of the IFRS's ECL model particularly troublesome for credit institutions. Up to recently, the Cyprus banking sector was characterised by a very high share of non-performing loans ("NPLs"). According to the Central Bank of Cyprus (2022), NPLs at the end of 2017 stood at 42% of the banking sector's total gross loans and the provision coverage ratio for these NPLs stood at 47%.

Nonetheless, the high percentage of NPLs cannot be fully attributed to the macroeconomic conditions in Cyprus. To the contrary, the overall legal framework and judicial system in Cyprus was not facilitating the effective resolution on NPLs. Indicatively, according to the World Bank Group (2019), enforcing contracts in Cyprus took on average 1,100 days, whereas insolvency proceedings took on average 1.5 years.

The insolvency and foreclosure frameworks in Cyprus were historically underutilised by credit institutions (European Commission and European Central Bank, 2019). The dismal foreclosure framework on the one hand, social and political pressures on the banks to avoid foreclosures on the other, led to the accumulation of large stocks of NPLs in the balance sheets of credit institutions, with little prospect of workout (European Commission and European Central Bank, 2018). Revisions to the foreclosure framework introduced in 2018 aimed to remove impediments to the operationalisation of the framework identified by stakeholders (European Commission and European Central Bank, 2018), albeit subsequent changes enacted in 2020 backtracked on key elements of the 2018 revision, thus increasing legal uncertainty over the foreclosure process (European Commission and European Central Bank, 2020).

Further to the above, the Parliament of Cyprus enacted a number of laws which suspend the foreclosures of the primary residence of borrowers or their business premises (starting² with Law 212(I)/2020) and more recently, Law 204(I)/2022). While the suspension of the foreclosures is subject to specific criteria relating to the size and value of the properties, these laws facilitate strategic defaulters.

It is evident from the above that the repayment culture of Cyprus borrowers was weak historically, while legislative actions of Members of the Parliament further eroded this repayment culture and increased legal uncertainty over the foreclosure framework. These factors are part of the key inputs used in calculating the credit losses in the IFRS 9's ECL model. More specifically, longer workout times and the uncertainty associated with the legal framework affect the loss given the borrower's default ("LGD") values used when calculating credit losses, since the recoverable amount of the loan's collateral takes a haircut to account for these factors. While LGD values were also used under the provisioning framework of the IAS 39, the move from IAS 39's incurred loss model to the IFRS 9's ECL model means that credit institutions no longer calculate credit loss

² Preceding to this, Law 60(I)/2020 provided for a temporary suspension of foreclosures during the application period of the "Estia" scheme, which aimed to provide government support for the restructuring of non-performing loans of viable but defaulted borrowers, subject to certain criteria.

allowances for FA carried at amortised cost that show objective evidence of impairment, but instead calculate credit losses for at least twelve months for all FA carried at amortised cost and lifetime credit losses for FA carried at amortised cost that exhibit significant increase in credit risks. This distinction can be material. Indicatively, a study conducted by Gaffney and McCann (2018) analysing the Irish mortgage market, showed that approximately 30% of the performing mortgage loan portfolio as at 31 December 2015 could have been assumed to exhibit significant increase in credit risk.

3.5 Regulatory treatment of retained earnings

Under the IFRS 9, movements in the credit loss allowances for FAs carried at amortised cost are recognised in profit or loss in the period they correspond (International Accounting Standards Board, 2018). As such, any increases in credit loss allowances due to the IFRS 9's ECL model have a direct impact on profitability, and eventually through retained earnings, on the capital reserves of an entity. This treatment poses additional challenges for credit institutions, due to the capital requirements they must adhere to.

Under the Basel III prudential framework, retained earnings, together with ordinary shares, share premium and accumulated other comprehensive income, are designated as Common Equity Tier 1 ("CET 1") capital (Bank of International Settlements, 2022). CET 1 capital is considered the highest quality of regulatory capital instruments and it is expected from credit institutions to use predominantly CET 1 instruments to meet their capital requirements (Bank of International Settlements, 2022).

Under the Basel III framework, credit institutions are subject to a CET 1 capital requirement of at least equal to 4.5% of their risk weighted assets (Bank of International Settlements, 2022). Further to this, credit institutions must also maintain a capital conservation buffer of 2.5% of their risk weighted assets in the form of CET 1 capital, as well as, any macroprudential capital buffers imposed by their respective macroprudential authority (Bank of International Settlements, 2022). Lastly, supervisors might also impose

bank specific capital requirements under the supervisory review process, which also could take the form of CET 1 capital (Bank of International Settlements, 2022).

Based on the above, fluctuations in the credit loss allowances under the IFRS 9's ECL model have a direct impact on credit institutions' capital position and could potentially lead to capital shortfalls. In particular, the first-time adoption of the IFRS 9 may result in a profound reduction of retained earnings for certain credit institutions, due to the first-time application of the IFRS 9's ECL model which would require the increase of the credit loss allowance account for FA carried at amortised cost. Moreover, in periods of financial or economic stress which could be considered a signal for significant increase in credit risk for a sizable part of the loan portfolio of a credit institution, the transition of these loans from Stage 1 to Stage 2 classification would also result in a profound reduction of retained earnings.

3.6 Regulatory treatment of credit loss allowances

The treatment of credit loss allowances for prudential regulation purposes depends on the approach followed by the credit institutions to calculate their capital requirements under the Basel III framework. It is noted that under the Basel III framework, credit institutions may follow the standardised approach ("SA"), or the Internal Ratings Based ("IRB") approach to calculate their risk-based capital requirements for credit risk (Bank of International Settlements, 2022).

Under the SA, credit institutions assign standardised risk weights to exposures set out in the Basel III framework. Risk weighted assets are subsequently calculated as the product of the standardised risk weights and the exposure amount. On the other hand, under the IRB approach, credit institutions are permitted to use internal models to calculate risk weighted assets for credit risk.

The SA to calculate risk-based capital requirements for credit risk, differentiates the regulatory treatment of credit loss allowances depending on whether they are general allowances or specific allowances (Bank of International Settlements, 2022). In order to calculate risk-based capital requirements for credit risk, credit institutions are allowed to risk weight their exposures net of specific credit loss allowances but gross of general credit loss allowances. At the same time, credit institutions are allowed to include general credit loss allowances as Tier 2 capital, subject to a limit of 1.25% of their credit risk weighted assets.

Under the IRB approach, regulatory credit loss allowances follow an approach similar to the IFRS 9's ECL model, albeit with certain critical differences (Bank of International Settlements, 2022). When regulatory expected losses exceed credit loss allowances booked for accounting purposes, the shortfall is deducted from CET 1 capital. When regulatory expected losses are less than the credit loss allowances booked for accounting purposes, credit institutions are allowed to include the excess as Tier 2 capital, subject to a limit of 0.6% of their credit risk weighted assets.

Chapter 4

Effects of the IFRS 9 on Financial Stability

4.1 First time adoption of the IFRS 9

The effects of the first-time adoption of the IFRS 9 on profitability were briefly touched upon in the previous chapter of this Master's Dissertation. A more in-depth discussion is presented below including the impact in entails to financial stability and the technical challenges of the implementation.

The first-time adoption of the IFRS 9 was expected to result in a sizable increase in credit loss allowances on FAs classified at amortised cost, in comparison to the IAS 39. Under the IAS 39, the requirement for the recognition of credit losses on FAs was explicitly reliant on a “trigger event”, i.e., the reporting entity should have had objective evidence of impairment of the FA in order to recognise credit losses (International Accounting Standards Board, 2010). On the other hand, the recognition of credit losses under the IFRS 9 is dependent on whether the FA exhibited significant increase in its credit risk since its initial inception (International Accounting Standards Board, 2018). In case the FA exhibited significant increases in its credit risk since its initial recognition, the entity recognises the total amount of “lifetime ECLs” as credit loss allowance, otherwise, the entity shall only recognise an amount of “twelve-month ECLs” as credit loss allowance

(International Accounting Standards Board, 2018). FAs that do not exhibit significant increases in credit risk are often referred to as Stage 1 assets, whereas FAs that have exhibited significant increases in credit risks are often referred to as Stage 2 or Stage 3 assets. The difference between Stage 2 and Stage 3 assets lies in the fact that in case the asset is credit impaired, or in other words the asset exhibited a materialised increase their credit risk, the interest income under the effective interest method is calculated on the net carrying amount of the asset and as such, is referred to as a Stage 3 asset.

It is evident from the above that the treatment of credit loss allowances for Stage 3 assets under the IFRS 9 resembles the credit loss allowance recognition regime under the IAS 39. Therefore, the increase in credit loss allowances resulting from the adoption of the IFRS 9 were expected to relate mostly to Stage 1 and Stage 2 assets (Gornjak, 2020 and ESRB, 2017). Although a number of studies were conducted before the application of the IFRS 9 in order to quantify the expected increase in credit loss allowances, significant heterogeneity was observed amongst these attempts. The European Banking Authority (2016) foresaw an increase of credit loss allowances approximating 18%. Deutsche Bank (2015) on the other hand, foresaw increases of approximately 42%, whereas Barclays (2017) anticipated increases of 20% – 30%. The diverging results were mainly driven by differences in participating credit institutions' loan portfolios.

Increases in credit loss allowances due to the IFRS 9's ECL model have a direct impact on profitability, and eventually through retained earnings, on the capital reserves of an entity. Consequently, it was anticipated that the first-time adoption of the IFRS would have a detrimental impact on prudential capital position of credit institutions. The European Banking Authority (2016) foresaw an average reduction in CET 1 ratios of European credit institution of approximately 59 basis points, whereas Barclays (2017), anticipated a reduction of 50%. Again, significant heterogeneity across credit institutions was anticipated in relation to the size of this impact.

In the absence of any transitional provisions for prudential purposes, the impact of the anticipated increase of credit loss allowances on credit institution's prudential capital position would materialise on day one of the adoption of the IFRS 9. This could entail inconsistent application of the IFRS 9's ECL model by credit institutions, reduced lending or even deleveraging by credit institutions, in order to avoid potential difficulties in raising new funding from investors or adhering to voluntary capital buffers above regulatory minima.

Being mindful of the above and to alleviate potential uncertainties relating to the first-time adoption of the IFRS 9 on the prudential capital positions of credit institutions, the Basel Committee on Banking Supervision amended the Basel III prudential framework, to introduce specific provisions facilitating the implementation of transitional arrangements by national authorities, thus smoothing the day one effects of the implementation of the IFRS 9 (Bank of International Settlements, 2017).

The amendments to the Basel III framework, addressed, among others, three main areas relating to the transitional arrangements. Firstly, the amendment established the scope of the transitional arrangements, that is the fact that transitional arrangement could be only implemented for credit loss allowances that are new under an ECL model. New credit loss allowances were defined as credit loss allowances "which do not exist under accounting approaches applied prior to the adoption of an ECL accounting model" (Bank of International Settlements, 2017). Further to this, the amendments established that in the event that the new credit loss allowances result in the reduction of CET 1 capital, the transitional arrangements must adjust the CET 1 capital by (partially) adding back the decline of the CET 1 ratio (the so called "transitional adjustment amount") over a number of years (Bank of International Settlements, 2017). Lastly, the amendments specified that the transitional period cannot exceed 5 years, commencing the date upon which a credit institution adopts an accounting framework that uses the ECL framework for the calculation of credit loss allowances (Bank of International Settlements, 2017).

Despite the above, the amendments have left considerable discretion to national authorities. Perhaps the most important discretion available to national authorities relates to whether the affected credit institution would calculate the adjustment amount once on the date of transition, or whether the adjustment amount would be recalculated periodically in order to reflect the evolution of the portfolio's ECL (Bank of International Settlements, 2017).

Law setters in the EU also recognised the potential negative effect the introduction of the IFRS 9 might have on the prudential capital position of credit institutions. The European Parliament, in its resolution of 6 October 2016 on International Financial Reporting Standards: IFRS 9, called for a progressive phase-in regime, that would alleviate the impact of the ECL model of IFRS 9 (Regulation (EU) No 2017/2395). Similarly, the European Commission, recognising the issue, included in its legislative proposal for the scheduled review of the prudential framework of credit institutions, specific provisions to implement phasing-in arrangements to alleviate the effects of the IFRS 9's ECL model (European Commission, 2016). These provisions were eventually materialised in a separate dedicated regulation, amending Regulation (EU) No 575/2013 which is the regulation transposing the Basel III framework into the EU regulatory framework (Regulation (EU) No 2017/2395).

Regulation (EU) No 2017/2395 follows the basic principles laid out by the Bank of International Settlements (2017), albeit a few notable differences exist. Regulation (EU) No 2017/2395 specifically mandates the use of a dynamic approach for calculating the amount to be added back to CET 1 capital, effectively recalculating the adjusting amount at each reporting date. The adjusting amount, consist of two elements, being the difference in credit loss allowances under the IFRS 9 and the IAS 39 at the date of implementation of the IFRS 9, and the increase in credit loss allowances for Stage 1 and Stage 2 assets between the date of implementation of IFRS 9 and the reporting date.

Further to this, although Regulation (EU) No 2017/2395 mandates a five-year transitional period, the phasing in is done in an accelerating matter. In 2018, which is the first year of the transitional arrangements, credit institutions were allowed to add back 95% of the additional credit loss allowances to their CET 1 capital. By 2022, which was the last year of the initial transitional arrangements, credit institutions were only allowed to add back 25% of the additional credit loss allowances to their CET 1 capital. During the COVID-19 pandemic the transitional arrangements included in the Regulation (EU) No 575/2013 were extended, to counter the procyclical effects of the IFRS 9's ECL model (Regulation (EU) 2020/873).

Further to the amount of credit loss allowances calculated by credit institutions, the transition from the IAS 39 to the IFRS 9 also constituted a substantial departure from the status quo in terms of how credit institutions were calculating their credit loss allowances. The forward-looking nature of the ECL model of the IFRS 9, requires the use of modelling techniques to estimate the twelve month and lifetime expected credit losses on FA carried at amortised cost. This would entail the need for credit institutions to gather, process and analyse vast amount of financial data about their borrowers and macroeconomic variables. As such, credit institutions would need to develop their Information Technology ("IT") systems to facilitate this transition. Further to this, credit institution would need to develop the technical know-how to carry out the transition, but also to apply the new standard in a consistent manner.

The potential implementation challenges, as well as, the potential impact of the first-time adoption of the IFRS 9 on credit institutions profitability and capital position necessitated a thematic review by the European Central Bank ("ECB") amongst the SIs it supervises directly, and in cooperation with national supervisory authorities, amongst Less Significant Institutions ("LSIs") of the euro area, which are supervised by national supervisory authorities. The primary objectives of the thematic review were to evaluate the level of preparedness of credit institutions to adopt the IFRS 9, to evaluate its potential impact on credit institutions' credit loss allowances and to promote its consistent application (European Central Bank, 2017).

The thematic review revealed that in 2017, SIs and LSIs “were working intensively in adapting their process to the IFRS 9 and investing heavily in the development of their IT systems” (European Central Bank, 2017). The ECB found that credit institutions that were following the supervisory approved IRB models to calculate their capital requirements were generally in good position to adapt their model expertise and modelling skills for the needs of the IFRS 9 (European Central Bank, 2017). Nonetheless, for credit institutions following the SA to calculate their capital requirements, the main challenge in the implementation of the IFRS 9 was the development of the modelling framework needed for the ECL approach (European Central Bank, 2017).

The ECB’s findings were also consistent with a study on Hungarian credit institutions, which supported that the adoption of the IFRS 9 included technical challenges, particularly for smaller credit institutions (Gulyás and Somogyi, 2019). Gulyás and Somogyi (2019) found that for Hungarian banks, the immaturity of the IT proved to be amongst the biggest hurdles for the transmission to the IFRS 9, particularly in light of the large amount of data required for the operationalisation of the ECL model.

In terms of the day-one effect of the adoption of the IFRS 9 on credit institutions’ capital position, the ECB’s thematic review estimated that the fully loaded average impact of the implementation on SIs CET 1 capital ratio would be around 40 basis points, whereas for LSIs, the fully loaded average impact of the implementation on their CET 1 capital ratio would be around 59 basis points (European Central Bank, 2017). It is noted that both for SIs and LSIs, the anticipated day-one impact of the implementation of the IFRS 9 varied significantly amongst the surveyed institutions.

A later study of the European Banking authority (2018) examining the actual impact of the IFRS 9 on EU credit institution’s prudential capital position, the average negative day-one impact on CET 1 was found to be 47 basis points. It was also found that credit institutions using the SA to calculate their capital requirements for credit risks had a greater day-one

impact that credit institutions following the IRB approach (European Banking Authority, 2018).

4.2 Procyclicality resulting from the ECL model

Before looking at whether the IFRS 9's ECL model results in procyclicality, one must understand how procyclicality is generated. According to the Financial Stability Forum (2008) procyclicality is defined as “the mutually reinforcing (positive feedback) mechanisms, through which the financial system can amplify business fluctuations and possibly cause or exacerbate financial instability”. A prime example of this is the behaviour of credit institutions during an economic downturn. As credit institutions face losses, their prudential capital position deteriorates, leading to difficulties for them to raise external funding at favourable terms, or to a deterioration in their dividend pay-out. To counter this, credit institutions might deleverage (sell-off assets) or reduce their lending to the real economy. These actions might in turn weaken economic activity, leading to further economic and financial contraction in a vicious cycle.

According to the Financial Stability Forum (2008), the fundamental sources of procyclicality in a financial system are the limitations in measurement of risk and the incentives of economic agents, that is, economic agents may act in a way that protects their interest, albeit the collective actions of these economic agents result in undesirable outcomes. The IFRS 9 attempts to rectify the issue of risk measurement, by mandating the recognition of lifetime credit losses when significant deterioration of credit risk is observed, although this in itself might not eliminate the source of cyclicity, but rather shift its timing forward.

The European Systemic Risk Board (2019) argues that the principles-based approach to assess whether a significant increase of credit risk has taken place since the inception of the asset, warranting its move from Stage 1 assets to Stage 2 assets, is a major factor that could potentially contribute towards procyclicality. The migration of assets from Stage

1 to Stage 2 entails a cliff effect because of the change in the assessment period covered by the IFR 9's ECL model, from twelve months to lifetime. As such, once an asset migrates to Stage 2 assets, credit institutions must anticipate the ECLs for the lifetime of the asset which are expected to be significantly higher than the twelve-month ECLs, leading to the recognition of higher credit loss allowances. It is noted by the European Systemic Risk Board (2019) that the remaining maturity of the asset and the degree that the borrower is sensitive to the cycle influence the amplitude of this cliff effect.

Since the IFRS 9's follows a principles-based approach for the evaluation of the significant increase in credit risk that warrants the move from Stage 1 to Stage 2, the procyclicality of IFRS 9 depends on the way credit institutions implement the standard. The European Systemic Risk Board (2019), found that the potential cliff effect is dependent on how sufficiently far in advance the ECL model used by a credit institution anticipates a downturn and on how the threshold used by the credit institution to assess whether a significant increase in credit risk has taken place. In situations that the ECL model used by a credit institution anticipates a downturn sufficiently in advance, a low threshold to classify assets as Stage 2 would result in a low cliff effect, but would likely also restrict lending. On the other hand, a high threshold to classify assets as Stage 2 would result in a less pronounced outcome.

In situations that the ECL model used by a credit institution does not anticipate a downturn sufficiently in advance, a low threshold to classify assets as Stage 2 would result in a less pronounced outcome, whereas a high threshold to classify assets as Stage 2 would result in a significant cliff effect. This is due to the fact that the high threshold to classify assets as Stage 2 means that the credit risk of the asset has deteriorated significantly before moving to Stage 2, necessitating the recognition of provisions to address the ECLs. When this is coupled with an ECL model that does not anticipate a downturn sufficiently far in advance, the economic conditions most likely have already deteriorated by the time the migration takes place, also pushing up ECLs.

The European Systemic Risk Board (2019) also argues that the point-in-time (“PIT”) estimates used in the ECL model led to more volatile results than through-the-cycle (“TTC”) estimates. For Stage 1 assets, the IFRS 9’s ECL model would be influenced by PIT conditions of the next 12 months. The provisioning needs for using PIT estimates in an economic upswing would be lower compared to the TTC estimates. Likewise, PIT estimates are expected to lead to higher provisioning needs in an economic downturn than TTC estimates. Nonetheless, once an asset is classified as a Stage 2 or Stage 3 asset, the time horizon for calculating ECL shifts from twelve months to the full remaining lifetime of the asset, bringing it closer to a TTC estimate.

Further to the above, the European Systemic Risk Board, Gaffney and McCann (2020) on a simulated study on the Irish mortgage market, found that in the critical period of 2008 to 2012, approximately 50% of all mortgages would have been classified as Stage 2 loans, in line with the contraction in the Irish economy. The European Systemic Risk Board et al (2020) argue that the IFRS 9’ ECL model could contribute to a smoother provisioning pattern during a downturn compared to the IAS 39, nonetheless, it would lead to a higher correlation between the economic state and the level of credit loss allowances.

Using modelling techniques, the European Systemic Risk Board, Abad and Suarez (2017) found that “contrary to its intended purpose, IFRS 9 in certain circumstances amplifies rather than reduces the variability in capital pressures over the business cycle, with potential well-known implications for the cyclicity of credit supply”. The European Systemic Risk Board et al (2017) found that under the IFRS 9’ ECL model, provisioning rates respond more promptly to the economic cycle compared to the IAS 39’s provisioning approach, thus acting procyclically via an accelerator effect. In particular, the early recognition of ECLs might imply, through the reduction of prudential capital, the loss of credit institutions’ lending capacity in the beginning of the macroeconomic contraction, contributing to its severity through feedback effects.

On the other hand, in a simulated study the European Central Bank, Población García, Tarancón, and Buesa (2019) found that the IFRS 9 is less procyclical than the IAS 39. This is the case because under the IAS 39 provisioning framework, losses are recognised when the default takes place, whereas under the IFRS 9's ECL model, credit loss allowances are recognised one year before default. Nonetheless, the European Central Bank et al (2019) focused only on the timing of recognition of the credit loss allowances, and not on the interaction of the perceived increase in credit risk as a result of the macro-financial outlook and how the macro-financial outlook is affected by credit institutions' provisioning.

4.3 Lending behaviour

Despite the issues detailed in Sections 4.1 and 4.2, the adoption of the IFRS 9 might entail certain positive aspects for financial stability. In particular, loan pricing could improve in light of the ECL calculations for credit institutions' loan portfolio, whereby credit institutions will be in a position to better anticipate the costs in relation to their lending activity (European Systemic Risk Board, 2017). The data required to run the IFRS 9's ECL model will enable credit institutions to assess better the risks associated with certain segments of their loan portfolios and ultimately adjust their loan pricing to account for these risks.

Another aspect that is discussed by the European Systemic Risk Board (2017) is how the IFRS 9 will affect the loan maturities. The modelling risk for the ECL calculations might act as a catalyst for a shift to shorter term loans, where this risk is reduced. More importantly, under the IFRS 9's ECL model, credit institutions have an incentive to minimize long-term lending, since loans with longer maturities are associated with more profound cliff effect in increased credit loss allowances when the loan migrates from Stage 1 to Stage 2.

4.4 Too much, too soon?

The main criticism of the provisioning framework included in the IAS 39 was the fact that its incurred loss model meant that by the time credit loss allowances were to be recognised, the loss has already materialised and there was little economic rationale to recognising credit loss allowances at such a late stage. The phrase “too little, too late” was often used by policymakers to describe the provisioning framework of the IAS 39. The ECL model followed by the IFRS 9 sought to improve upon this deficiency by using a forward-looking approach to calculate the expected credit losses on FA. Nonetheless, given the concerns raised in Section 4.2 over the procyclicality of the ECL approach, the question emerges whether this ECL approach demands “too much, too soon” in terms of recognising credit loss allowances for future credit losses.

This question is particularly relevant when taking into account the modelling risk that the IFRS 9’s ECL approach entails. The IFRS 9 follows more of a principles-based approach and as such, important aspects of the ECL calculation, such as the assessment whether a FA exhibited significant increase in its credit risk, are subject to diverging interpretations by reporting entities. Further to this, the modelling process for calculating ECLs is prone to managerial judgment and discretion (European Systemic Risk Board, 2017). Credit institutions and in particular smaller, less complex credit institutions might be lacking the required experience and data for the modelling needs of the ECL calculation. As such, the overreliance on modelling entails the risk of recognising higher credit loss allowances than required, due to the uncertainties involved in estimating whether a significant increase in the credit risk of a FA has taken place, warranting its migration from Stage 1 to Stage 2.

The COVID-19 pandemic could have been the first real trial for evaluating the possible procyclicality of the IFRS 9. Nonetheless, regulators and lawmakers recognised that the application of the IFRS 9’s ECL during the economic turmoil caused by the COVID-19 pandemic might lead to material increases in credit loss allowances (Regulation (EU) 2020/873). As such, to mitigate the probable impact of the COVID-19 pandemic on credit institutions’ ability to lend to the real economy, further transitional arrangements for the

introduction of the IFRS 9 were introduced to the EU prudential framework (Regulation (EU) 2020/873).

Specifically, according to Regulation (EU) 2020/873, the adjusting amount to be added back to credit institutions' CET 1 capital, now consist of three elements. The basic elements are the difference in credit loss allowances under the IFRS 9 and the IAS 39 at the date of implementation of the IFRS 9, and the increase in credit loss allowances for Stage 1 and Stage 2 assets between the date of implementation of the IFRS 9 and the 31 December 2019 which follow the initial phasing in arrangements. The additional element is the increase in credit loss allowances for Stage 1 and Stage 2 assets between 1 January 2020 and the reporting date. The third element of the adjustment follows a modified phasing-in path, whereby credit institutions were allowed to add back 100% of the additional credit loss allowances to their CET 1 capital in 2020 and in 2021, subsequently reducing by 25% on an annual basis so as by 2024 credit are only allowed to add back 25% (Regulation (EU) 2020/873).

Although the COVID-19 pandemic brought about unprecedented conditions, it can be argued that the reaction of the regulators and lawmakers is indicative of the view that the IFRS 9's forward-looking ECL model would make worse of an already challenging situation, even though the anticipated credit losses might never materialise.

Chapter 5

Case study on Significant Credit Institutions (SIs) in Cyprus

At the time of writing of this Master's Dissertation, three Cyprus credit institutions were classified by the ECB as SIs, these being Bank of Cyprus Public Company Ltd ("BoC"), Hellenic Bank Public Company Ltd ("HB") and RCB Bank Ltd ("RCB") (European Central Bank, 2022b). Credit institutions are classified as SIs on the basis of the criteria of size, economic importance, cross border activities and direct public financial assistance, which are set out in Regulation (EU) No 468/2014. Specifically, in case a credit institution's total assets exceed €30 billion (criterion of size), or the ratio of the credit institution's total assets to the member state's gross domestic product ("GDP") exceeds 20% and the credit institution's total assets also exceed €5 billion (criterion of economic importance), or the ratio of the credit institution's cross-border assets to total assets or cross-border liabilities to total liabilities exceeds 20% (criterion of cross border activities) or the credit institutions has requested or received funding from the European Stability Mechanism or the European Financial Stability Facility (criterion of direct public financial assistance) or it is one of the three largest credit institutions in a particular member state, this credit institution is classified as SI and is directly supervised by the ECB (Regulation (EU) No 468/2014).

Because of the geopolitical crisis in Ukraine and following the supervisory decision of the ECB dated 24 March 2022 (European Central Bank, 2022a), RCB has ceased banking

operations in 2022, and its banking licence has been fully withdrawn on 22 December 2022 (European Central Bank, 2022c). Nonetheless, RCB is still part of the study for this Master's Dissertation, since during the introduction of the IFRS 9 and up to December 2021 was operating normally as a Cyprus SI.

The disclosures included in the financial statement of the three Cyprus SIs will form the basis of the analysis for the purposes of the Master's Dissertation. In addition to this, disclosures included in the Pillar III reports of the three Cyprus SIs also provide information on how the adoption of the IFRS 9 affected the prudential capital position of these credit institutions.

More specifically, the required disclosures in the financial statements relating to the instruments that the IFRS 9 addresses, are set out in a different accounting standard concerning only disclosures relating to financial instruments (International Accounting Standards Board, 2018). The IFRS 7, Financial Instruments: Disclosures, contains the disclosures that entities reporting under the IFRSs must include in their financial statements, both on a regular basis, but also more importantly, for the initial application of the IFRS 9 (International Accounting Standards Board, 2018). These comprehensive disclosures enable the user of the financial statements to understand how the transition from the IAS 39 to the IFRS 9 affected the financial position of the reporting entity, and how each class of FAs and FLs was affected.

Further to the above, Regulation (EU) No 2017/2395, which introduced transitional arrangement for the introduction of the IFRS 9 into the EU prudential framework for credit institutions, stipulates that "institutions that have decided to apply the transitional arrangements set out in this Article shall disclose the amounts of own funds, Common Equity Tier 1 capital and Tier 1 capital, the Common Equity Tier 1 capital ratio, the Tier 1 capital ratio, the total capital ratio and the leverage ratio they would have in case they were not to apply this Article" (Regulation (EU) No 2017/2395). These disclosures enable

the user of the Pillar III disclosures to evaluate what was the impact of the introduction of the IFRS 9 on credit institutions' prudential capital position.

In this Chapter, the disclosures relating to the IFRS 9 of the three Cyprus SIs will be analysed to assess how each of these institutions was affected by the transition. Moreover, the Pillar III disclosures of the three Cyprus SIs will be also examined, to assess how the transition affected the prudential capital position of the three Cyprus SIs.

5.1 Bank of Cyprus Public Company Ltd

Due to its size, BoC was most affected by the adoption of the IFRS 9. Specifically, the total negative impact on BoC's equity amounted to €307,620 thousands (Bank of Cyprus Public Company Ltd, 2019a). Retained earnings were the most affected equity item, where the total negative impact amounted to €299,150 thousands, followed by the revaluation reserve for securities classified at fair value through other comprehensive income ("FVOCI"), at €8,470 thousands.

On 1 January 2018, credit loss allowances on FA were increased by €327,431 thousands, before tax allowances, as a result of the adoption of the IFRS 9 (Bank of Cyprus Public Company Ltd, 2019a). On the same date, credit loss allowances specifically on loans and advances to customers increased by €319,102 thousands, or by 8.3%, from €3,486,776 thousands to €3,771,952 thousands.

When examining how the total provision coverage ratio³ on year-end figures evolved around the time of the adoption of the IFRS 9, it is evident from Table 1 that this metric fluctuated significantly during the period under review. The total provision coverage ratio ranged from 18.5% to 19.6% between 2015 and 2017, reaching 22.9% in 2018. Subsequently, the ratio exhibited two sharp drops, to 14.8% in 2019 and to 5.7% in 2021.

³ Total provision coverage ratio is defined as total provisions (credit loss allowances) over total gross loans.

While it is evident that the adoption of the IFRS 9 brought a sizable increase in credit loss allowances, the fluctuations in the total provision coverage ratio are due to unrelated circumstances, mainly due to the sale of loan portfolios.

Table 1: Evolution of BoC's total provision coverage ratio, including assets held for sale

| (€'millions) | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|--|--------------|---------------|---------------|---------------|--------------|---------------|---------------|
| Total Gross Loans | 10,396 | 11,742 | 12,182 | 15,142 | 18,086 | 19,202 | 21,385 |
| Credit loss allowances | -591 | -1,653 | -1,804 | -3,462 | -3,484 | -3,552 | -4,193 |
| Net loans and advances to customers | 9,805 | 10,089 | 10,378 | 11,680 | 14,60 | 15,649 | 17,192 |
| | | | | | | | |
| Provision coverage ratio (%) | 5.7% | 14.1% | 14.8% | 22.9% | 19.3% | 18.5% | 19.6% |

(Source: Bank of Cyprus Public Company Ltd, 2022a, 2021a, 2020a, 2019a, 2018, 2017 and 2016)

In 2018, BoC reached an agreement to dispose part of its loan portfolio, also known as Helix portfolio (Bank of Cyprus Public Company Ltd, 2019a). The Helix portfolio included loans and advances with gross book value of €2.7 billion on 31 December 2018, of which €2.6 billion were NPLs. Total provision coverage on assets held for sale amounted to 57.4% on 31 December 2018 (Bank of Cyprus Public Company Ltd, 2019a). The completion of the disposal of the Helix portfolio took place in June 2019 (Bank of Cyprus Public Company Ltd, 2020a), leading to a sizable reduction of the 2019 year-end figures of loans and advances, as well as, credit loss allowances, thus affecting the total provision coverage ratio.

In 2020, BoC reached an agreement for the sale of another loan portfolio, known as Helix 2A (Bank of Cyprus Public Company Ltd, 2021a). Portfolio Helix 2A included loans and advances with a total gross book value on 31 December 2020 of €820 million. Further to this, in January 2021, BoC also reached an agreement for the sale of yet another loan portfolio, known as Helix 2B with a total gross book value of €489 million (Bank of Cyprus Public Company Ltd, 2022a). The Helix 2 portfolios included non-performing loans of

gross book value of €1,305 million, and the disposal was completed in June 2021 (Bank of Cyprus Public Company Ltd, 2022a). Total provision coverage on assets held for sale amounted to 63.2% on 31 December 2020 (Bank of Cyprus Public Company Ltd, 2021a).

The structural breaks in the underlying data described above, render any analysis of the total provision coverage ratio very challenging. Higher credit loss allowances are usually booked against NPLs, particularly when being mindful of the circumstances surrounding the financial landscape of Cyprus described in Section 3.4. Since both Helix portfolios mostly consisted of NPLs, the credit loss allowances booked against the sold loans were utilised to reduce the losses on the disposal of these portfolios. As such, the sale of the Helix portfolios influenced significantly the evolution of the total provision coverage ratio. Nonetheless, looking at provision coverage per IFRS 9 Stages could lead to meaningful conclusions. This information is presented in Table 2 below.

It is noted that for years 2015, 2016 and 2017 no IFRS 9 Stage classification is available. Instead, loans are assigned to an IFRS 9 stage as follows: Loans classified as “Neither past, nor impaired” are included in Stage 1. Loans classified as “Past due, but not impaired” are included in Stage 2. Loans classified as “Impaired” are included in Stage 3. It should also be noted that for the years 2015 to 2017, BoC was only disclosing the total level of credit loss allowances and the provision coverage ratio for the credit impaired loans. For the purposes of this Master’s Thesis, the assumption was made that any credit loss allowances that were not related to impaired loans concerned the proxy used for Stage 2 loans.

Table 2: Evolution of BoC's provision coverage ratio per IFRS 9 stage, including assets held for sale

| (€'millions) | 2021 | 2020 | 2019 | 2018 | 2017 ⁴ | 2016 ⁴ | 2015 ⁴ |
|-------------------------------------|---------------|---------------|---------------|---------------|-------------------|-------------------|-------------------|
| Total gross loans | | | | | | | |
| Stage 1 | 7,419 | 6,615 | 6,945 | 5,965 | 11,010 | 10,825 | 10,270 |
| Stage 2 | 1,701 | 2,145 | 1,504 | 1,992 | 2,055 | 2,199 | 2,988 |
| Stage 3 | 1,048 | 2,502 | 3,172 | 6,074 | 5,022 | 6,178 | 8,127 |
| POCI ⁵ | 229 | 479 | 560 | 1,112 | - | - | - |
| Total | 10,396 | 11,742 | 12,182 | 15,142 | 18,086 | 19,202 | 21,385 |
| | | | | | | | |
| Credit loss allowances | | | | | | | |
| Stage 1 | -15 | -23 | -17 | -26 | - | - | - |
| Stage 2 | -29 | -49 | -25 | -74 | -421 | -216 | -292 |
| Stage 3 | -479 | -1,376 | -1,555 | -2,930 | -3,063 | -3,336 | -3,901 |
| POCI ⁵ | -68 | -204 | -206 | -432 | - | - | - |
| Total | -591 | -1,653 | -1,804 | -3,462 | -3,484 | -3,552 | -4,193 |
| | | | | | | | |
| Provision coverage ratio (%) | | | | | | | |
| Stage 1 | 0.2% | 0.3% | 0.2% | 0.4% | 0% | 0% | 0% |
| Stage 2 | 1.7% | 2.3% | 1.7% | 3.7% | 3.8% | 2.0% | 2.8% |
| Stage 3 | 45.7% | 55.0% | 49.0% | 48.2% | 61.0% | 54.0% | 48.0% |
| POCI ⁵ | 29.7% | 42.7% | 36.8% | 38.8% | - | - | - |
| Total | 5.7% | 14.1% | 14.8% | 22.9% | 19.3% | 18.5% | 19.6% |

(Source: Bank of Cyprus Public Company Ltd, 2022a, 2021a, 2020a, 2019a, 2018, 2017 and 2016)

Following up on the information from Table 2, a number of conclusions could be reached. BoC's provision coverage on Stage 3 loans (or the proxy used where staging information was not available) stayed in the range of 45% to 55%, with a single exception in 2017 reaching 61%. Provision coverage ratio for Stage 2 loans exhibits a similar behaviour, as it fluctuated between 1.7% and 3.8% in the period under review. Provision coverage on POCI loans remained below that of Stage 3 loans, presumably representing the lower (but

⁴ For years 2015, 2016 and 2017 no IFRS 9 stage classification is available. Instead, loans are assigned to an IFRS 9 stage as follows: Loans classified as "Neither past, nor impaired" are included in Stage 1. Loans classified as "Past due, but not impaired" as included in Stage 2. Loans classified as "Impaired" are included in Stage 3.

⁵ Purchased or originated credit impaired loans ("POCI") is not a concept that existed before the IFRS 9, and as such, no proxy was used for this category for years 2017, 2016 and 2015.

evident) credit risk of these loans. Provision coverage for Stage 1 loans is evident only following the requirement of the IFRS 9 to recognise twelve-month ECLs for Stage 1 loans, even though they do not exhibit increase in credit risk. Nonetheless, coverage remains rather limited.

Focusing on the staging information of the IFRS 9, in 2018, 39.4% of BoC's loans and advances was classified as Stage 1, 13.2% was classified as Stage 2 and 40.1% was classified as Stage 3 (Bank of Cyprus Public Company Ltd, 2019a). By 2020, the share of Stage 1 loans increased to 57.0%, Stage 2 loans increased to 18.3% and Stage 3 loan dropped to 21.3% of the total loan portfolio (Bank of Cyprus Public Company Ltd, 2021a). The disposal of the Helix portfolio was the main contributing factor behind the big drop in Stage 3 loans. With regards to Stage 2 loans, while there appears to be a significant increase in percentage terms, in absolute monetary terms Stage 2 remained around the €2 billion mark, exhibiting a modest increase of €153,408 thousands from 2018. Since the COVID-19 pandemic deteriorated the macroeconomic outlook, a sharper increase in Stage 2 and Stage 3 loans was expected. The relatively modest increase in Stage 2 and Stage 3 loans could be attributed to the fact that approximately €5,870,000 thousands of loans and advances, representing 50% of BoC's total loans and advances were under the moratorium on loan repayments by 31 December 2020 (Bank of Cyprus Public Company Ltd, 2021a), thus limiting any potential to exhibit difficulties in loan repayments.

Although on the first day of adoption of the IFRS 9 BoC recognised additional credit loss allowances on the opening provision on loans and advances to customers of approximately 8%, based on the information presented in Table 2, it is not apparent that the introduction of the IFRS 9 had a material impact on the provisioning practices of BoC. Credit loss allowances tend to be focused on Stage 3 loans, with Stage 2 loans attracting a significantly smaller share of the provisioning coverage. Given that both for Stage 2 and for Stage 3 loans the ECL assessment covers lifetime ECL, this discrepancy was not fully anticipated.

With regard to the prudential treatment of the transition, BoC decided to implement the transitional arrangements for the adoption of the IFRS 9 (Bank of Cyprus Public Company Ltd, 2019b). BoC states in their 2018 Pillar III disclosures that, the transitional arrangements freed-up approximately €304,775 thousands of CET 1 capital, which amounted to an increase of approximately 170 basis points of CET 1 ratio for the year ended 31 December 2018 (Bank of Cyprus Public Company Ltd, 2019b). Focusing only on the first quarter of 2018, the transitional arrangements freed-up approximately €293,333 thousands of CET 1 capital, which amounted to an increase of approximately 158 basis points of CET 1 ratio.

Table 3: Effect on the phasing-in arrangements of the IFRS 9 on BoC's CET 1 capital and CET 1 capital ratio

| (€'millions) | 2018Q1 | 2018 | 2019 | 2020 | 2021 |
|---|---------------|-------------|-------------|-------------|-------------|
| CET 1 capital with phasing-in arrangements | 2.054 | 1.863 | 1.909 | 1.723 | 1.620 |
| CET 1 capital without phasing-in arrangements | 1.761 | 1.558 | 1.647 | 1.477 | 1.460 |
| Difference | 293 | 305 | 262 | 246 | 160 |
| | | | | | |
| CET 1 ratio with phasing-in arrangements (%) | 11.6% | 12.1% | 14.8% | 14.8% | 15.1% |
| CET 1 ratio without phasing-in arrangements (%) | 10.1% | 10.4% | 13.1% | 13.0% | 13.9% |
| Difference (basis points) | 150 | 170 | 175 | 183 | 128 |

(Source: Bank of Cyprus Public Company Ltd, 2019b, 2020b, 2021b and 2022b)

Focusing on the 2018Q1 figures provides one can better estimate the day one prudential impact of the implementation of the IFRS 9. This is the case because under the phasing-in arrangements followed by EU credit institutions, the adjustment to the CET 1 capital consists of two main elements, which are (a) the difference in credit loss allowances under the IFRS 9 and the IAS 39 at the date of implementation of the IFRS 9, and (b) the increase in credit loss allowances for Stage 1 and Stage 2 assets between the date of implementation of IFRS 9 and the reporting date (Regulation (EU) No 2017/2395). As such, 2018Q1 figures are not expected to differ materially from 1 January 2018, because

of the relatively short time span between the two dates, leaving a small timeframe for the increase in credit loss allowances of Stage 1 and Stage 2 assets.

Regulation (EU) No 2017/2395 mandates that during the first year of the phasing-in period of the IFRS 9, EU credit institutions can add-back 95% of the IFRS 9 adjustment to their CET 1 capital. Consequently, using the information from Table 3, it is derived that the total (unadjusted) impact of the adoption of IFRS 9 resulted in a reduction of the CET 1 capital of BoC of approximately €308,772 thousands. The impact on the statutory CET 1 capital ratio is approximately 158 basis points. It is noted that the impact of 158 basis points on the CET 1 capital ratio exceeds greatly the EU average of 47 basis points found by the European Banking authority (2018). This difference could be attributed to the finding of the European Banking authority (2018) that credit institutions using the standardised approach to calculate their capital requirements for credit risks were more affected by the adoption of the IFRS 9. Further to this, the structural issues of the Cyprus financial landscape described in Section 3.4 of this Master's Dissertation might be also responsible for the large deviation from the EU average impact.

It is noteworthy that the difference between BoC's CET 1 capital ratio under the transitional arrangements and the CET 1 capital ratio without incorporating the transitional arrangements reached its peak in 2020. One would assume that this is due to the measures implemented in the EU to combat the effects of the COVID-19 pandemic, whereby Regulation (EU) 2020/873 introduced further transitional arrangements for credit loss allowances on Stage 1 and Stage 2 assets recognised after 1 January 2020. However, looking at the monetary difference in BoC's CET 1 capital, in 2020 was amongst the smallest in the period under review. According to Bank of Cyprus Public Company Ltd (2021b) this movement is a result of a number of factors, including the new IFRS 9 transitional arrangements, albeit a significant part is attributed to a denominator effect, since regulatory changes also brought about a reduction of risk weighted assets.

5.2 Hellenic Bank Public Company Ltd

Examining the second largest Cyprus SI, HB, provides a similar picture, albeit on a smaller scale. The total adverse effect of the adoption of the IFRS 9 on HB's equity was €33,684 thousands, which consisted of a negative adjustment to HB's retained earnings of €35,671 thousands and a positive adjustment to the revaluation reserve of €1,987 on FA classified at FVOCI (Hellenic Bank Public Company Ltd, 2019a).

Credit loss allowances on the opening balances of FA were increased by €38,648 thousands, before tax allowances, as a result of the adoption of the IFRS 9 in 2018 (Hellenic Bank Public Company Ltd, 2019a). on the same date, credit loss allowances specifically on loans and advances to customers increased by €37,931 thousands, or 2.9%, from €1,288,175 thousands to €1,326,106 thousands (Hellenic Bank Public Company Ltd, 2019a).

It is evident from Table 4 that the total provision coverage ratio³ on year-end figures was significantly affected by the adoption of the IFRS 9. The total provision coverage ratio ranged from 29.6% to 32.0% between 2015 and 2017. Subsequently, the ratio exhibited two sharp drops to 17.7% in 2018 (when the IFRS 9 was adopted) and to 10.9% in 2020. This finding is also consistent with the relatively small increase in additional credit loss allowances recognised on the opening figures in 2018 according to the disclosures on the transition to 2018. Nonetheless, the fluctuations in the total provision coverage ratio might be due to unrelated circumstances, mainly due to the acquisition of a new loan portfolio from the ex-Cyprus Cooperative Bank Ltd ("CCB").

Table 4: Evolution of HB's total provision coverage ratio, including assets held for sale

| (€'millions) | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Total Gross Loans | 6,728 | 6,852 | 7,244 | 7,636 | 4,055 | 4,300 | 4,396 |
| Credit loss allowances | -775 | -747 | -1,265 | -1,352 | -1,288 | -1,374 | -1,303 |
| Net loans and advances to customers | 5,973 | 6,106 | 5,979 | 6,283 | 2,767 | 2,926 | 3,093 |
| Provision coverage ratio (%) | 11.2% | 10.9% | 17.5% | 17.7% | 31.8% | 32.0% | 29.6% |

(Source: Hellenic Bank Public Company Ltd, 2022a, 2021a, 2020a, 2019a, 2018 and 2017)

During 2018, HB acquired certain assets and liabilities from the ex-CCB, (Hellenic Bank Public Company Ltd, 2019a). It is noted that this transaction was accompanied by an Asset Protection Scheme (“APS”), under which HB would receive credit protection for Stage 1, Stage 2 and Stage 3 assets through a 90% vertical loss borne by the ex-CCB (Hellenic Bank Public Company Ltd, 2019b). The duration of the APS is ten years for Stage 1 and Stage 2 assets and twelve years for Stage 3 assets and it is guaranteed by the Republic of Cyprus (Hellenic Bank Public Company Ltd, 2019b). Given the protection level, it is not anticipated that HB would recognise significant amounts of credit loss allowances for ECLs for the acquired loan portfolio. Nonetheless, in their financial statements HB specifically states that “the impairment on covered assets measured at amortised cost is assessed and charged in accordance with the Group’s accounting policy with no adjustments to reflect the protection provided by the APS” (Hellenic Bank Public Company Ltd, 2019a).

Despite the fact that the acquisition of a new loan portfolio from the ex-CCB should not have had a material effect on the provisioning practices followed by HB, looking at provision coverage per IFRS 9 Stages could lead to valuable conclusions. This information is presented in the Table 5 below.

As is the case for BoC, for years 2015, 2016 and 2017 no IFRS 9 Stage classification is available for HB. Instead, loans are assigned to an IFRS 9 stage using proxy information that is disclosed in the financial statements. These proxies are disclosed in Section 5.1.

Table 5: Evolution of HB's provision coverage ratio per IFRS 9 stage, including assets held for sale

| (€'millions) | 2021 | 2020 | 2019 | 2018 | 2017 ⁴ | 2016 ⁴ | 2015 ⁴ |
|-------------------------------------|--------------|--------------|---------------|---------------|-------------------|-------------------|-------------------|
| Total gross loans | | | | | | | |
| Stage 1 | 4,298 | 4,224 | 4,432 | 4,658 | 2,168 | 1,675 | 1,679 |
| Stage 2 | 929 | 965 | 443 | 447 | 138 | 152 | 189 |
| Stage 3 | 1,149 | 1,290 | 1,975 | 2,104 | 1,750 | 2,473 | 2,529 |
| POCI ⁵ | 353 | 373 | 395 | 427 | - | - | - |
| Total | 6,728 | 6,852 | 7,244 | 7,636 | 4,055 | 4,300 | 4,396 |
| | | | | | | | |
| Credit loss allowances | | | | | | | |
| Stage 1 | -34 | -40 | -30 | -42 | - | - | - |
| Stage 2 | -55 | -49 | -31 | -27 | -16 | -28 | -34 |
| Stage 3 | -671 | -663 | -1,223 | -1,291 | -1,272 | -1,347 | -1,270 |
| POCI ⁵ | 4 | 6 | 20 | 8 | - | - | - |
| Total | -755 | -747 | -1,265 | -1,352 | -1,288 | -1,374 | -1,303 |
| | | | | | | | |
| Provision coverage ratio (%) | | | | | | | |
| Stage 1 | 0.8% | 1.0% | 0.7% | 0.9% | 0.0% | 0.0% | 0.0% |
| Stage 2 | 5.9% | 5.1% | 7.1% | 6.0% | 11.8% | 18.1% | 17.8% |
| Stage 3 | 58.4% | 51.4% | 61.9% | 61.4% | 72.7% | 54.4% | 50.2% |
| POCI ⁵ | -1.2% | -1.6% | -5.0% | -1.8% | 0.0% | 0.0% | 0.0% |
| Total | 11.2% | 10.9% | 17.5% | 17.7% | 31.8% | 32.0% | 29.6% |

(Source: Hellenic Bank Public Company Ltd, 2022a, 2021a, 2020a, 2019a, 2018 and 2017)

Based on the on the information presented in Table 5, HB's provision coverage on Stage 3 loans (or the proxy used where staging information was not available) stayed in the range of 50% to 62%, between 2015 and 2021, with a single exception in 2017, reaching almost 73%. Provision coverage ratio for Stage 2 loans exhibits a different behaviour. The ratio for Stage 2 loans, after hovering around 18% in 2015 and 2016, drops to almost 12% in 2018 and subsequently to 6% in 2018, where it remained up to 2022. Provision

coverage on POCI loans remained positive, presumably representing anticipation for improvement in the credit quality of these loans. Provision coverage for Stage 1 loans is elevated compared to peer credit institutions, albeit still remains under 1% through the period under review.

The IFRS 9 staging information reveals that in 2018, 61% of HB's loans and advances to customers were classified as Stage 1 loans, 5.9% were classified as Stage 2 loans and 27.6% were classified as stage 3 loans (Hellenic Bank public Company Ltd, 2019a). By 2020, the share of Stage 1 loans increased slightly to 61.7%, Stage 2 loans increased to 14.1% of the total loan portfolio and Stage 3 loans dropped to 18.8% of the total loan portfolio (Hellenic Bank public Company Ltd, 2021a). Given the deteriorated macroeconomic outlook brought by the COVID-19 pandemic, an increase in Stage 2 loans is to be expected, albeit the decrease in Stage 3 loans is rather unexpected. By 31 December 2020, 40.3% of HB's loans and advances to customers, amounting to €2,758,376 thousands, was under the moratorium on loan repayments (Hellenic Bank public Company Ltd, 2021a). Of this amount, €163,916 thousands, or 2.4% of the total loan portfolio, were non-performing loans.

After reviewing the information in Table 5, it is not evident whether the adoption of the IFRS 9 had a definite impact on the provisioning practices followed by HB. This finding is consistent with the fact that opening credit loss allowances on loans and advances to customers were increased only by 2.9%. As is the case for BoC, HB's credit loss allowances are focused on Stage 3 loans, where coverage remained fairly stable during the period under review. However, provision coverage for Stage 2 loans follows a downward trajectory, which is not what was anticipated.

In terms of the prudential treatment of the transition, HB also decided to implement the transitional arrangements for the adoption of the IFRS 9 (Hellenic Bank Public Company Ltd, 2019b). As per HB's Pillar III disclosures for the year 2018, the transitional arrangements for the IFRS 9 freed-up approximately €36.6 million of CET 1 capital, which

amounted to an increase of approximately 56 basis points of CET 1 ratio for the year ended 31 December 2018 (Hellenic Bank Public Company Ltd, 2019b). HB also provided restated opening figures for 2018 which include the effects of the transition from the IAS 39 to the IFRS 9. Looking at the opening figures, it is evident that the IFRS 9 phasing-in arrangements freed-up approximately €36.6 million of CET 1 capital, which amounted to 93 basis points of CET 1 capital ratio.

Table 6: Effect on the phasing-in arrangements of the IFRS 9 on HB's CET 1 capital and CET 1 capital ratio

| (€'millions) | 2018 opening (restated) | 2018 | 2019 | 2020 | 2021 |
|---|----------------------------|-----------|-----------|-----------|-----------|
| CET 1 capital with phasing-in arrangements | 473 | 760 | 1.007 | 1.112 | 1.058 |
| CET 1 capital without phasing-in arrangements | 437 | 723 | 974 | 1.052 | 1.009 |
| Difference | 37 | 37 | 33 | 59 | 49 |
| | | | | | |
| CET 1 ratio with phasing-in arrangements (%) | 13.9% | 15.8% | 20.0% | 20.0% | 19.3% |
| CET 1 ratio without phasing-in arrangements (%) | 12.9% | 15.3% | 19.5% | 19.2% | 18.6% |
| Difference (basis points) | 93 | 56 | 51 | 83 | 72 |

(Source: Hellenic Bank Public Company Ltd, 2019b, 2020b, 2021b and 2022b)

Since HB provides opening figures for 2018, the true total effect of the introduction of the IFRS 9 can be better approximated. Using the information from Table 6, and assuming the 95% add-back mandated by the Regulation (EU) No 2017/2395, it is derived that the total (unadjusted) impact of the adoption of IFRS 9 resulted in a reduction of the CET 1 capital of HB of approximately €38.6 million. The impact on the statutory CET 1 capital ratio is approximately 98 basis points. Again, this is significantly higher the EU average found by the European Banking Authority (2018). As in the case of BoC, this divergence is in line with the finding of the European Banking Authority (2018) that credit institutions using the standardised approach to calculate their capital requirements for credit risks were more affected by the adoption of the IFRS 9. Further to this, the same structural issues of the Cyprus financial landscape described in Section 3.4 of this Master's

Dissertation also apply to HB and they might be responsible for the large deviation from the EU average impact.

HB recognised a sizable increase in its CET 1 capital during 2018. The increase is mostly attributable to the transaction that took place in 2018, whereby HB acquired certain assets and liabilities from the ex-CCB, albeit it is partially offset by a corresponding increase in HB's risk weighted assets (Hellenic Bank Public Company Ltd, 2019b).

As it is noted above, this transaction was accompanied by an APS, under which HB would receive credit protection for Stage 1 Stage 2 and Stage 3 assets through a 90% vertical loss borne by the ex-CCB (Hellenic Bank Public Company Ltd, 2019b). Given the protection level, it is not anticipated that HB would recognise significant amounts of credit loss allowances for ECLs for the acquired loan portfolio.

Looking at the yearly difference in HB's CET 1 capital ratio under the transitional arrangements and the CET 1 capital ratio without incorporating the transitional arrangements in Table 6, following a downward trajectory in 2019, this difference has reached a peak in 2020. HB disclosed that the supplementary add-back introduced through Regulation (EU) 2020/873 relating to post 1 January 2020 ECLs accounted for an increase of approximately 52 basis points, whereas the add-back of ECL up to 31 December 2019 accounted for approximately 1 basis point, despite the decrease of the percentage to be added back (Hellenic Bank Public Company Ltd, 2021b). As such, it is evident that the supplementary transitional arrangements introduced through Regulation (EU) 2020/873 to combat the adverse effects that the IFRS 9's ECL model might have on credit institutions' ability to finance the real economy through the pandemic has benefited HB.

5.3 RCB Bank Ltd

Looking at RCB, the total negative impact on the credit institution's equity amounted to €10,437 thousands (RCB Bank Ltd, 2019a). The effect is almost exclusively concentrated on the retained earnings of RCB, while a small positive revaluation reserve for securities classified at FVOCI was also created.

Focusing more specifically on the impact on credit loss allowances on FA, the pre-tax impact of the adoption of IFRS was an increase of €11,783 thousands (RCB Bank Ltd, 2019a). Credit loss allowances on loans and advances to customers increased by 46.5%, from €25,227 thousands to €36,970 thousands. The biggest increase was observed in loans and advances to legal entities, where credit loss allowances increased by 48.0%, from €21,574 thousands to €31.937 thousands, whereas increases in the provisioning for loans and advances to individuals was scarcely affected, demonstrating an increase of 8.8%, from €3,249 thousands to €3,536 thousands.

Looking at the total provision coverage ratio³ of RCB, Table 7 reveals that although the total provision coverage ratio fluctuated throughout the years, after the introduction of the IFRS 9, total provision coverage followed an upward trend. Nonetheless, provision coverage ratio remained fairly stable in the first year of adoption of the IFRS 9.

Table 7: Evolution of RCB's total provision coverage ratio

| (€'millions) | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|--|--------------|--------------|--------------|--------------|--------------|---------------|
| Total Gross Loans | 3,563 | 3,569 | 4,901 | 6,886 | 7,195 | 11,339 |
| Credit loss allowances | -67 | -34 | -36 | -25 | -54 | -43 |
| Net loans and advances to customers | 3,496 | 3,535 | 4,865 | 6,860 | 7,141 | 11,295 |
| | | | | | | |
| Provision coverage ratio (%) | 1.9% | 1.0% | 0.7% | 0.4% | 0.8% | 0.4% |

(Source: RCB Bank Ltd, 2021a, 2020, 2019a, 2018a, 2017 and 2016)

The IFRS 9 staging information reveals that the vast majority of RCB's loans and advances to customers were classified as Stage 1 assets. In 2018, 97% of RCB's loans were classified as Stage 1 assets (RCB Bank Ltd, 2019a). By 2020, this percentage dropped to 84%, whereas Stage 2 loans increased to 12% of the total loan portfolio and Stage 3 loans increased to 4% of the total loan portfolio (RCB Bank Ltd, 2021a). This perceived significant increase in credit risk that gave rise to the migration from Stage 1 loans to Stage 2 and from Stage 2 to Stage 3 can be attributed the deteriorated macroeconomic outlook brought by the COVID-19 pandemic (RCB Bank Ltd, 2021a).

Table 8: Evolution of RCB's provision coverage ratio per IFRS 9 stage

| (€'millions) | 2020 | 2019 | 2018 | 2017 ⁴ | 2016 ⁴ | 2015 ⁴ |
|-------------------------------------|--------------|--------------|--------------|-------------------|-------------------|-------------------|
| Total gross loans | | | | | | |
| Stage 1 | 2,995 | 3,435 | 4,732 | 6,871 | 7,135 | 11,264 |
| Stage 2 | 437 | 106 | 157 | 0 | - | 22 |
| Stage 3 | 131 | 28 | 12 | 14 | 60 | 53 |
| Total | 3,563 | 3,569 | 4,901 | 6,886 | 7,195 | 11,339 |
| | | | | | | |
| Credit loss allowances | | | | | | |
| Stage 1 | -7 | -11 | -10 | -13 | -10 | - |
| Stage 2 | -7 | -11 | -15 | - | - | - |
| Stage 3 | -53 | -13 | -11 | -12 | -45 | -43 |
| Total | -67 | -34 | -36 | -25 | -54 | -43 |
| | | | | | | |
| Provision coverage ratio (%) | | | | | | |
| Stage 1 | 0.2% | 0.3% | 0.2% | 0.2% | 0.1% | 0.0% |
| Stage 2 | 1.5% | 10.1% | 9.3% | 0.0% | 0.0% | 0.0% |
| Stage 3 | 40.7% | 46.2% | 90.3% | 84.6% | 74.3% | 82.7% |
| Total | 1.9% | 1.0% | 0.7% | 0.4% | 0.8% | 0.4% |

(Source: RCB Bank Ltd, 2021a, 2020, 2019a, 2018a, 2017 and 2016)

As per Table 8, RCB's provision coverage was mostly focused on Stage 3 loans. Provision coverage for Stage 3 loans ranged between 40.7% and 90.3%. in 2018 and 2019 provision coverage for Stage 2 loans was around 10.1%, but subsequently dropped to 1.5% in 2020. This drop is the result of the transfer of a sizable portion of Stage 2 loans to Stage 3 due to the COVID-19 pandemic (RCB Bank Ltd, 2021a). Provision coverage on Stage 1 loans

remained just over zero, representing the comparatively small portion of twelve-month ECLs on Stage 1 loans.

In terms of the prudential treatment of the transition, RCB states in their Pillar III disclosures for 2018, that the credit institution decided not to apply any transitional arrangements for the introduction of IFRS 9 and as such, the RCB's own funds, capital ratios and leverage ratio reflect the full impact of the IFRS 9's introduction (RCB Bank Ltd, 2019b). RCB further notes in their Pillar III disclosures for 2020 that the credit institution again chose not to implement the supplementary transitional arrangements introduced through Regulation (EU) 2020/873 (RCB Bank Ltd, 2021b).

Combining the information from RCB's 2018 financial statements and from its Pillar III disclosures for 2017, the impact of the introduction of the IFRS 9 on RCB's CET 1 capital can be estimated, albeit with some important caveats. To calculate the adjusted opening CET capital, the total adjustment in to the 2018 opening capital reserves of €10,437 thousands, as shown in the 2018 financial statements, was deducted from the 2017 closing CET 1 capital. Further to the above, the same amount was deducted by the 2017 closing risk weighted assets, implying that the full amount of the adjustment related to specific credit loss allowances which are fully deductible.

Table 9: Estimated day-one impact of the adoption of the IFRS 9 on RCB's CET 1 capital ratio

| (€'millions) | 2018 opening figures |
|----------------------------------|-----------------------------|
| Reported CET 1 capital | 432 |
| Adjusted CET 1 capital | 442 |
| Difference | 10 |
| | |
| Reported risk weighted assets | 2,196 |
| Adjusted risk weighted assets | 2,185 |
| | |
| Reported CET 1 ratio | 20.1% |
| Adjusted CET 1 ratio (%) | 19.8% |
| Difference (basis points) | 38 |

(Source: RCB Ltd, 2019a, 2018b)

As it is presented in Table 9, it is estimated that the total impact of the adoption of IFRS 9 was a reduction of the CET 1 capital ratio of RCB of approximately 38 basis points.

Chapter 6

Epilogue

The IFRS 9 was the answer to the shortcomings presented by IAS 39, particularly with respect to IAS 39's inability to recognise credit losses in a timely manner. The shift from the IAS 39 incurred loss model to the IFRS 9's ECL model constituted a shift in paradigm. Reporting entities need to make a forward-looking assessment of ECLs on their FAs over the time horizon of at least twelve months and in case the FA exhibited a significant increase in credit risk, over the lifetime of the FA which could span over decades.

The adoption of the IFRS 9 is particularly important for credit institutions, especially credit institutions operating in Cyprus. At an EU level the adoption of IFRSs is mandatory only for entities whose securities are listed on recognised exchanges. However, all limited liability companies established in the Republic of Cyprus, are required by law to use the IFRSs. By their very nature, the operations of credit institutions involve the holding of large numbers of FAs and of FLs. As a result of this, the main risk faced by credit institutions, particularly those operating in the challenging financial landscape of Cyprus, are exposed to significant levels of credit risk. When this risk materialises, or when credit institutions recognise credit loss allowances against this risk, their prudential capital position is deteriorated directly. Based on the above, it is evident that the transition to the IFRS 9 had a more profound effect on credit institutions compared to other entities.

Because of their role in financing the real economy and the profound impact that the IFRS 9 has on credit institutions, the transition to the IFRS 9 had significant implication on the stability of the financial system. The transition from IAS 39 to the IFRS 9 was anticipated to result in a significant increase in credit loss allowances, particularly in relation to Stage 2 assets. The impact on EU credit institutions was, on average, a 47 basis points reduction in CET 1 capital. Further the one-off effect of the adoption of the IFRS 9, its ECL model entails elements that might result in procyclical behaviour, exerting further pressure on financial stability.

In terms of the impact of the adoption of IFRS 9 on the three SIs operating in Cyprus, the study shows a somehow mixed picture. On the first day of the adoption of the IFRS 9, all three SIs had a sizable increase in their credit loss allowances due to the remeasurement of opening credit loss allowances using the IFRS 9's ECL model. The opening credit loss allowances of BoC increased by 8.3%, those of HB increased by 2.9%, while RCB experienced an increase of opening credit loss allowances of 46.5%, albeit from a very low base. Both BoC and HB adopted the transitional provisions for the phasing-in of the impact of the adoption of the IFRS 9 for prudential purposes, whereas RCB opted not to use transitional provisions for prudential purposes. The day-one adverse impact of the adoption of the IFRS on BoC's prudential CET 1 capital ratio was estimated at 158 basis points, on HB's prudential CET 1 capital ratio the total impact was estimated at 98 basis points whereas the impact on RCB's prudential CET1 capital ratio was estimated to be 38 basis points, albeit the calculation for RCB entails some caveats. None of the three SIs exhibited an observable shift in its provisioning practices due to the adoption of the IFRS 9, although conclusions cannot be drawn with confidence, since BoC and HB underwent significant structural changes during the period under review.

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