المجلة الدولية للأداء الاقتصادي
International journal of economic performance
ISSN: 2661-7161 EISSN:2716-9073
Publications are Open Access in this journal

COVID 19 IMPLICATIONS ON CREDIT LOSS PROVISIONING RULES UNDER IFRS 9: PRO-CYCLICALITY CONCERNS

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Submitted:14/02/2024 Accepted:28/04/2024 Published:30/06/2024

Abstract:

The objective of this paper is to analyse the procyclicality behavior of Expected Credit Loss (ECL) model introduced by IFRS 9, during the economic downturn due to the Covid 19 pandemic. A regression analysis was conducted on a dataset gathered from euro era in order to investigate the hypothesis suggesting that the new model does not exhibit a procyclical behavior. Our findings indicate that, despite the IASB's expectation that the ECL model would have a countercyclical impact, it still demonstrates procyclical behavior.

Key words: IFRS9, ECL model, Procyclicality, Covid 19 pandemic.

JEL Classification Codes : E32, G21, M41 .

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INTRODUCTION :

Since the global subprime financial crisis in 2008, many studies have been focusing on the stability of the financial system and its procyclicality behavior which might undesirably impact the stability of the whole financial system. In retrospect to the subprime financial crisis in 2008, the incurred loss model introduced by IAS 39 was considered as been a main factor contributing in the global financial crisis by its procyclicality behavior.

In response to this critique, the IASB has set a new collection of rules for accounting for credit loss provisioning in order to eliminate procyclicality. A new international accounting standard, IFRS 9 Financial instruments, is one of them.

The outbreak of COVID 19 pandemic has been the first economic crisis affecting the credit impairment model ECL introduced by IFRS 9, and renewed concerns about Procyclicality and the effectiveness of new approach of credit impairment ECL in limiting procyclicality effects due to the economic downturn.

General problematic

The general problematic of this paper can be formulated as follows:

Does IFRS 9 behave procyclically in the economic downturn induced by COVID 19 pandemic?

Hypothesis

According to IASB, the new ECL model would have a countercyclical impact. Thus, IFRS 9 does not have a procyclical impact.

Objectives

The aim of this study is to examine the effectiveness of the new impairment methodology ECL model in provisioning for credit loss, and find out whether the new forward-looking provisioning rules yield a countercyclical behavior as intended, as well as making a

contribution to the dialogue concerning the effects of the IFRS 9 standard on the stability of financial system.

Importance of the study

The significance of this study lies in the role played by accounting rules for credit loss provisioning in maintaining financial stability. It also drives its importance from the subject of the study as being a topic of the hour in accounting.

Methodology applied

For the purpose of this paper, an empirical study based on a regression model will be performed on dataset gathered from the euro era. we will look at the interaction between the economic sector which is represented by the Gross Domestic Product (GDP), and the financial sector which is represented by credit impairment volume.

1. LITERATURE REVIEW

This part of the study provides insights about the disease and its consequences on the overall economic situation, and highlights the conceptual framework of IFRS 9 financial instruments and its new impairment methodology ECL. It also explains procyclicality and the role of accounting rules in the financial system.

1.1 COVID 19 Pandemic

Coronaviruses are a cluster of viruses that pertain to the lineage of Coronaviridae, effectively infecting both animal and human hosts. Human coronaviruses can cause mild illness resembling to a common cold, whereas others cause more grave disease. In late 2019, A novel variant of the coronavirus that has not been previously identified in human population emerged in province of Wuhan in China (World Health Organization, 2020, p. 1). This novel Coronavirus was later designated as corona virus disease 2019 (COVID-19) by World Health Organization (WHO).

The new infectious disease has spread rapidly with a very high death-rate, the number of people who have been infected by the virus around the world has reached a point where it become exceedingly challenging to track. (Pete Kinross et al, 2020, p. 4). Due to the rapid dissemination of the new virus across the globe, on the 11th of March 2020, the Director-General of the WHO formally proclaimed the Covid-19 virus as a global pandemic. (World Health Organization, 2020). Following a span exceeding three years from its initial emergence, and until the time of writing of this paper, the number of confirmed cases of COVID-19 worldwide, as reported by the official statistics of the World Health Organization, has attained a significant level of 768 983 095 confirmed cases of COVID-19, including 6 953 743 deaths (World Health Organization, 2023).

1.2 Covid-19 pandemic's impact on the global economy

In Addition to the aforementioned health consequences, COVID 19 pandemic has massively affected the global economy and financial markets. disruptions in the transportation and services, significant reductions in income and manufacturing industries, a rise in unemployment …. etc, are among the consequences of restriction of activities due to lockdowns and distancing measures adopted by governments around the world to contain the rapid spread of the virus (Anton et al, 2020, p. 3).

The COVID-19 Pandemic has caused the worst economic situation in the recent decades. The International Monetary Fund characterized the unprecedented economic decline resulting from the pandemic as "a crisis like no other", while identifying the strict confinement measures as "the worst economic downturn" since the Great famous Depression in 1929 (International Monetary Fund A, 2020) .

The impact of COVID 19 on the international GDP is massive, the global recession is the deepest since 1945 (the end of World War two). In accordance with the International Monetary Fund (IMF) report released in April 2021, there was a 7 percent contraction in comparison to the earlier 3.4 percent growth projection made in October 2019. Notably,

virtually all nations surveyed by the IMF experienced negative economic growth in the year 2020; however, the downturn was particularly accentuated in the most economically disadvantaged regions across the globe. (International Monetary Fund , 2021).

The disease spread across the globe at lightning speed causing immense disruptions in trade of goods and services especially at the beginning of the crisis, many essential goods came to be in short supply (United Nations, 2022) .

The rapid spread of COVID-19 has dramatically affected the financial markets all over the world, the effects of the pandemic on the general economic situation and the uncertainty associated to the pandemic have caused disruptions in many financial markets worldwide and made these markets witness substantial changes following the global diffusion of COVID-19 (Stefan Cristian Gherghina, 2023, p. 1). The outbreak of the COVID-19 pandemic significantly increased the probability of a severe decline in the stock market. Consequently, both the S&P500 and S&P Europe 350 experienced a depreciation of over a third of their value on 23 March 2020, compared to their highest recorded levels on 19 February 2020. Additionally, there was a notable decrease of 12% in a single day in mid-March. The Dow Jones Industrial Average witnessed a decrease of 7.79% on 9 March 2020, followed by a further decline to 9.9% on 12 March 2020, denoting the largest drop in US history. (Stefan Cristian Gherghina, 2023, p. 1).

1.3 Credit Loss and credit loss Provisioning

Provisioning for potential credit losses is the estimation of future losses that might occur in the future due to risk of default. this indicates that losses from bad debts or other credits that are probably going to be irrecoverable are anticipated. Credit losses are accounted for as expenses on the company's financial statements (investopedia, 2023).

Within the accounting literature, there exist a variety of credit loss impairment models including , the Fair Value model, the Expected Credit Loss model , the dynamic provisioning, and the Incurred Loss model. (Dirk Beerbaum et al, 2015, p. 2) .

Banks trade financial instruments to enable the transfer of funds between savers and borrowers, which is a crucial function they do for the economy. Banks are required to set aside a portion of their financial instrument's value as a provision for the expected default when there is a probability that the borrower will default, leading to a financial instrument's expected yield falling short of what was promised. This provision is known as expected credit loss. On their balance sheets, banks should record the projected credit loss at the time the financial instruments are first recognized. (Merjona Lamaj, 2022, p. 5).

1.4 IFRS 9 and The New Impairment Methodology ECL

In this section, we highlight the essential amendments brought by IFRS 9 on accounting for financial instruments, and the new impairment methodology ECL.

1.4.1 IFRS 9

In the aftermath of the subprime crisis in 2008, fundamental weaknesses were identified in IAS 39 Financial instruments: Recognition and Measurement, receiving substantial criticism for its belated and incomplete recognition of impairments "Too little, too late". (Arndt G & Daniel R, 2021, p. 3). In order to improve policies and procedures related to credit loss provisioning, related parties such as investors, the G20, prudential authorities, and regulatory agencies, have advocated for decisive measures from accounting standard setters. Responding to these calls, the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) have collaborated to revise accounting rules based on forward-looking information in the direction of an expected credit loss methodology in response to these complaints. (Benjamin H et al, 2017, p. 2) .

Due to the complicated requirements of IAS 39 , the standard was considered by accountants to be complex and too difficult to understand ,the main objective of the new standard is to simplify the requirements of IAS 39 by using an increasingly principle-based model on purpose to reduce complexities revolving around recognition,

classification and reclassification , and a detailed methodology for recognition of impairment losses (Salim Alibhai et al , 2018, p. 613) .

IFRS 9 introduces significant amendments to IAS 39, effectively superseding it in two pivotal aspects. First, it incorporates an expected credit loss approach for the calculation of credit losses. Second, it provides more robust guidelines for the classification, reclassification, and measurement of financial instruments compared to the existing framework (IFRS 9 : Financial instruments, 2022).

All financial instruments, assets and liabilities, must be valued at fair value or amortized cost depending on their classification which is in turn based on two criteria, business model and characteristics of contractual cash flows of the financial asset. Therefore, under IFRS 9, the business model and the characteristics of cash flows relating to financial instruments plays a significant part in determining the classification of the financial asset (Salim Alibhai et al , 2018, p. 626) .

The three types of financial instruments that are distinguished by the new standard are debt instruments, equity instruments, and derivatives. Bonds are an example of a debt instrument, which is a contractual obligation of the issuer to repay the lender in line with the terms of the agreement and at a set maturity. An example of a derivative is an option. Derivatives are financial contracts whose value is derived from one or more underlying assets. Equity instruments comprise the final category. These contracts serve as legally acknowledged proof of an individual's ownership stake in a business. (Grant Thornton, 2017, p. 2).

The primary area of difference between IAS 39 and IFRS 9 is how financial instruments are classified as shown in (Table:01). The models' frameworks vary greatly as a result of the classification differences. (IFRS 9 : Financial instruments, 2022).

Table 01: key differences between IFRS 9 and IAS 39

Key differences / Standards	IAS 39	IFRS 9
Test	1. Held for trading test	2. Business model test 3. SPPI test
Categories of financial instruments	1. Available for sale 2. Loans and receivables 3. Held to maturity 4. Fair value option	1. Debt instruments 2. Derivatives 3. Equity instruments
Valuation methods	1. Amortized cost 2. Fair value through OCI 3. Fair value through profit and loss	1. Amortized cost 2. Fair value through OCI 3. Fair value through profit and loss

Source: own elaboration based on IAS 39 and IFRS 9

1.4.2 The Expected Credit Loss (ECL) Model

In July 2014, the international accounting standard board (IASB) released IFRS 9 Financial Instruments bringing with it a new credit impairment methodology Expected credit loss model (ECL). The key innovation brought by IFRS 9 is a shift from a backward incurred losses approach towards a forward-looking paradigm ECL.

ECL are "a probability-weighted estimate of credit losses". The difference between the cash flows that the business expects to receive discounted at the initial effective interest rate and those that are due to the entity is known as a credit loss. (PwC, 2014, p. 3).

Under IFRS 9, impairment of credits is recognized in three stages as follows:

- **Stage 1:** Upon the origination or acquisition of a loan, the Expected Credit Loss (ECL) stemming from potential default within the subsequent 12 months is acknowledged, leading to the establishment of a corresponding loss allowance. In subsequent reporting periods, the 12-month ECL framework is similarly applied to existing loans with no significant escalation in credit risk since their initial recognition. Interest

revenue is then computed based on the gross carrying amount of the loan (Dirk Beerbaum et al, 2015, p. 2) **.**

- **Stage 2:** This stage includes any financial asset with a notable rise in its credit risk since its first recognition without objective signs of impairment. For this category of financial assets, lifetime ECL are recorded, and the gross carrying amount is still used to compute interest revenue. (PwC, 2014, p. 3)**.**
- **Stage 3:** The third stage of ECL impairment methodology contains financial assets with confirmed signs of impairment (incurred losses). The net carrying amount is used to compute interest revenue, and the lifetime ECL must be recognized (PwC, 2014, p. 3).

Figure 01: Three-stage approach in the expected credit loss

STAGE 1	**STAGE 2**	**STAGE 3**
Unchanged credit risk	Significant increase in credit risk	Credit impaired (incurred loss)
12-months expected credit losses	Lifetime expected credit losses	Lifetime expected credit losses
Interest accrued on gross carrying amount	Interest accrued on gross carrying amount	Interest accrued on net carrying amount

Source: (IASB, 2022) .

According to IFRS 9, a multifactor and comprehensive approach should be used in determining the level of credit risk deterioration. The standard offers a set of non-exhaustive conditions, which can be summed up as follows:

- A considerable change in the internal prices;
- Other modifications to an existing financial instrument's term rate;
- Notable variations in external market indicators;
- Notable variations in the credit rating;
- An erosion in internal credit rating;
- Notable variations in the collateral's value.

The increase in the likelihood of default since the first detection is the basis to determine if there has been a notable increase in credit risk. The new standard allows entities to determine if the credit risk has risen significantly using a variety of methods which must be applied consistently. (Dirk Beerbaum et al, 2015, p. 2).

According to IFRS 9, entities must provide information outlining how they assess ECL and evaluate the changes in credit risk, as well as the rationale behind their ECL calculations. Additionally, for each category of ECL, they must offer a reconciliation of the initial and final ECL amounts as well as the carrying values of the related assets in their financial statements (IFRS 9 : Financial instruments, 2022).

ECL for financial assets is a probability-weighted sum that is objectively determined by taking into account the risk of credit loss, even in cases where the probability is small. (Rajosik Banerjee et al, 2017, p. 9).

According to definitions provided by IFRS 9, the ECL formula can be written as follows:

$$ECL = \sum_{t=1}^{T} EAD\ t * LGD\ t * PD\ t$$

- **Exposure at default (EAD)**: This is the principal amount to which the loss given default and the probability of default are applied. Based on a historical review of repayments made during the period leading up to default, a repayment rate is determined. (Rajosik Banerjee et al, 2017, p. 9).

EAD = The principal amount outstanding x (1- the estimated rate of repayment during the default period).

- **Loss Given Default (LGD)**: LGD is represented by a portion of unrecovered amount of a credit when default occurs (Rajosik Banerjee et al, 2017, p. 10).

- **Probability of Default (PD)**: PD is the likelihood that debtors will eventually fall behind on their payments. If an asset is in stage 1, a 12-month PD is necessary. Stage 2 requires a lifetime PD which necessitates the construction of a PD term structure. (Rajosik Banerjee et al, 2017, p. 10).

1.5 ECL Model and Procyclicality concerns due to COVID-19 Pandemic

Before going into details, a first question to be answered relates to the definition of procyclicality. An initial attempt would refer to the fact that some variables move together with the cycle, standing in clear opposition to countercyclical variables which move in the opposite direction. Therefore, procyclicality refers to the tendency of financial variables to fluctuate around a trend during the economic cycle (Jean-Pierre Landau, 2009, p. 1) **.** When discussing provisions for loan losses, procyclicality usually refers to how credit loss provisioning rules lead bank lending to fluctuate in a way that mirrors changes in real economic activity. (Basel Committeeon Banking Supervision, 2021, p. 8).

Given to the very recent introduction of IFRS 9 and ECL model, the first global economic crisis that has an impact on the implementation of ECL approach is the downturn associated with the COVID-19 pandemic. A further concern has been raised again regarding IFRS 9 and ECL procyclicality in the wake of the Covid -19-induced

economic downturn, in the first quarter of 2020. Forecasting an exogenous shock with such uncertainty appears to have reinforced the pre-implementation beliefs that new prospective ECL techniques could exacerbate procyclicality. For example, (Dirk Beerbaum et al, 2015, p. 4) documented that the possible procyclical behavior of IFRS 9 may be produced by shifting exposures from stage 1 to stage 2, using PDs and LGDs in projected credit loss models, and increasing stage 3 exposures during a downturn. (Harry Huizinga et al, 2019) also found that provisioning in the euro area is procyclical by determining the negative correlation between GDP growth and the volume of loan loss provisions. The estimate they provided was based on projected statistics and was shown to be more important for larger banks.

Financial authorities and accounting standard setters are both well aware of the pandemic's possible procyclical impact on bank loan loss provisions and implications for bank capital adequacy. In this regard, Recommendations and measures have been announced to avoid procyclicality effects of Covid 19 pandemic. On 1 April 2020, the Chairman of the Supervisory Board of European central bank Andre Enria recommended big European banks and financial institutions not to use procyclical assumptions when reporting for credit losses. (European Central Bank A, 2020) . the European Central Bank (ECB) has also offered banks a list of capital and operating guidelines to help them withstanding the pandemic's stressful conditions and continue funding businesses who are having problems**.** (European Central Bank B, 2020).

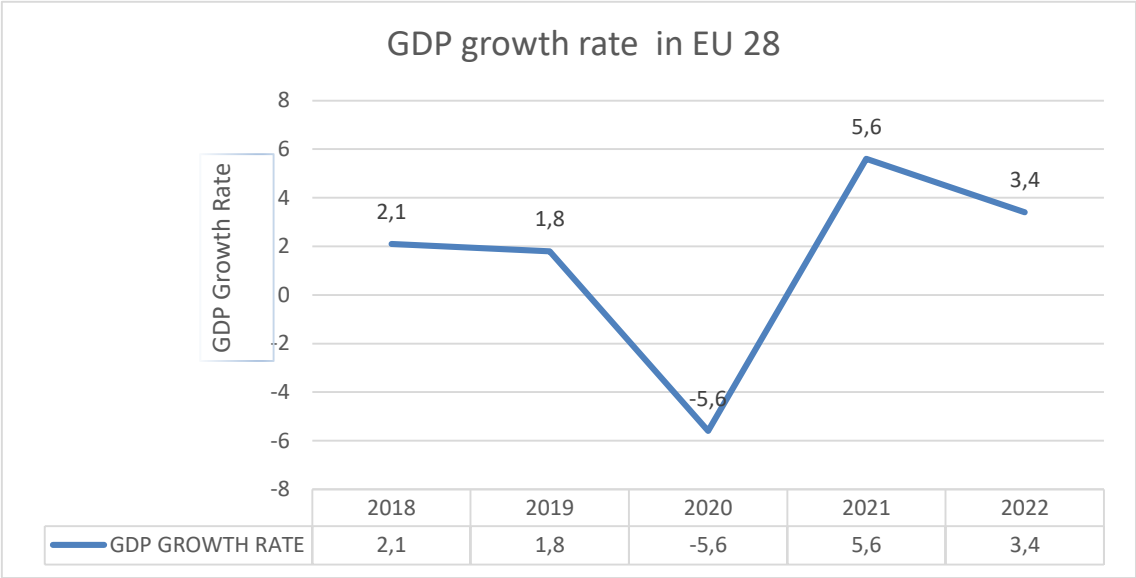
2. DATA AND METHODOLOGY:

In this section, we will explain the selection of data used to assess the pro-cyclicality implications of covid 19 on credit loss provisioning rules under IFRS 9, and the methodology adopted. The dataset used for the purpose of this study covers publicly available data about the euro era, the empirical analysis is based on data on impairment volume from consolidated banking data obtained from ECB Data portal (European

Central Bank, 2023), and data gathered from Eurostat statistics on GDP growth in the Euro area (Eurostat, 2023).

The data about GDP growth rate for 28 EU member countries for the period going from 2018 to 2022 were obtained from the Eurostat database (**Figure 02).**

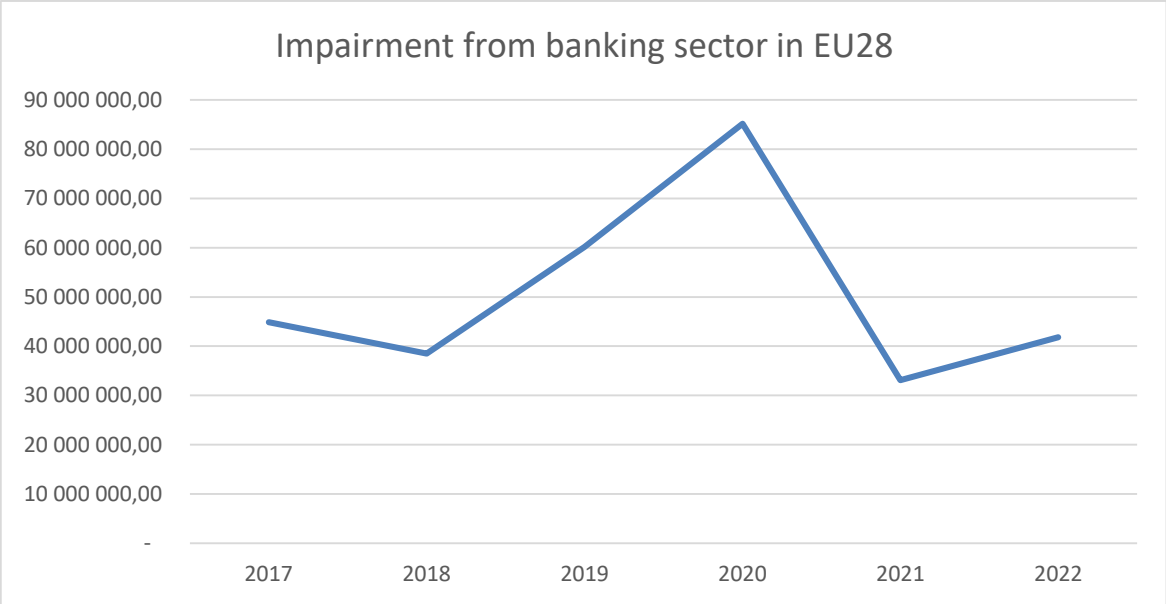
Figure 02: Development of GDP Growth rate in EU 28 from 2018 to 2022



Source: Eurostat database (Eurostat, 2023).

The annual data on impairment of financial assets of banks were downloaded from the ECB Data portal for the 28 EU member countries for the same period going from 2018 to 2022 (**Figure 03).**

Figure 03: Consolidated banking Impairment In EU 28 from 2018 to 2022.



The **Source**: European Central Bank Data portal (European Central Bank, 2023).

empirical test was performed on the comprehensive data set via a regression analysis. Relative variables, the dependent and independent variables, were used for the impairment volume derived from European consolidated banking data as (a dependent variable), and the European GDP growth rate as (an independent variable).

The regression can be expressed as follows:

$$IMPit = \alpha + \beta 0 * GDPit$$

Where:

IMPit represents the dependent variable(impairment);

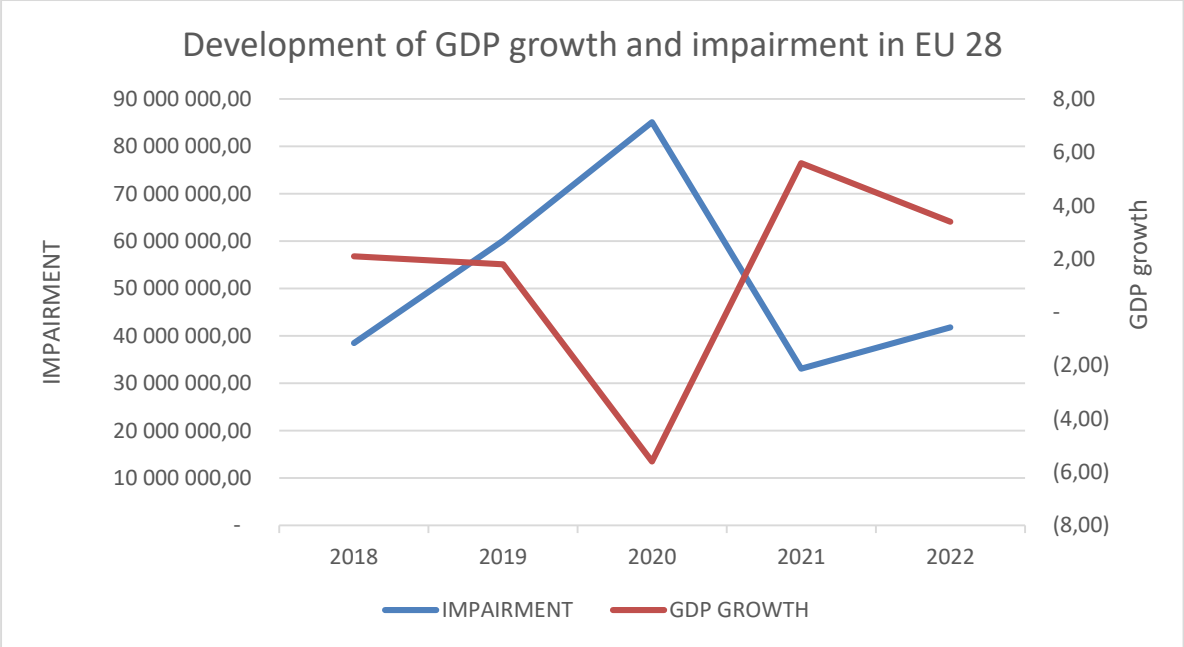
GDPit represents the independent variable (gross domestic product);

β0 represents the slope coefficient that measures the effect of *GDP* on IMP;

α represents the intercept.

The relationship between the two variables can be clearly observed in **(Figure 04)**, The total impairment scale is represented by the vertical axis on the left, while the EU28 GDP growth rate is represented by the vertical axis on the right.

Figure 04: Development Of Impairment and GDP in EU 28 From 2018 to 2022



Source: Own elaboration.

Based on (**Figure 04)**, the development of variables (impairment under IFRS 9 and the GDP growth rate) indicates that there is a negative correlation between the two variables suggesting that there is a procyclical behavior resulting from the provisioning rules under IFRS 9 standard. The graphical relationship is supported by the negative value of correlation coefficient (−0,94), which represents a reasonably strong negative correlation as a result of the current economic slowdown brought on by COVID restrictions. (an obvious and notable slowdown in GDP growth for the year 2020).

3. RSULTS

Based on the results of the regression analysis, The coefficient's value indicates that there is a negative correlation between the GDP growth and the impairment volume. The impairment decreases by 0.94 basis points for every percent increase in GDP, and vice

versa. The regression's outcome also lines up with the variables' graphical progression and the negative correlation coefficient.

The findings reject the hypothesis suggesting that credit loss provisioning rules under IFRS 9 standard do not have a procyclicality impact, despite the expectation of the standard-setting bodies IASB and FASB, as well as regulatory and financial authorities, who anticipated that the new expected credit loss model induced by IFRS 9 would have a countercyclical impact.

4. CONCLUSION

This paper sets out to examine the effectiveness of ECL impairment methodology in limiting pro-cyclicality effects resulting from economic downturn induced by Covid-19 pandemic. To achieve this purpose, we first provided a literature review of the study by giving insights about the pandemic and its consequences on the overall economy , it has been evidence that the Pandemic has caused the worst economic situation in the recent decades which was described as "a crisis like no other", and that the Great Lock-down as the worst economic downturn since the Depression in 1929 . We also highlighted the conceptual framework of IFRS 9 financial instruments and the new impairment methodology ECL which is based on e forward-looking information. Finally, we gave a theoretical review of pro-cyclicality and the interaction between the economic cycle and credit cycle and the importance of credit loss provisioning in such a matter.

Secondly, in order to test the hypothesis suggesting that the new provisioning rules under IFRS 9 standard, do not have a procyclicality impact, a regression analysis was performed on the 28 EU member countries, with Consolidated banking Impairment from 2018 to 2022 as a dependent variable, and Development of GDP Growth for the same period as an independent variable.

The results indicate that there is a negative relationship between the two variables supported by a negative coefficient, a modest growth in the Gross Domestic Product

(GDP) results in a decrease of 0.94 basis points in the level of impairment, and conversely. Hence, it is possible to deduce that our initial hypothesis was rejected based on statistical evidence, and the outcomes of this research provide support for the prevailing evaluations on the procyclical consequences of the International Financial Reporting Standard (IFRS) 9. However, these findings are contradictory to the previously held belief in the countercyclical impact of this new accounting standard.

5.RECOMMENDATION

Our suggestions would be to conduct a more thorough examination of the requirements of IFRS 9. This examination could provide clarity on whether there are any potential factors that could make loan loss provisions under ECL model to exhibit procyclical behavior. In such a scenario, our policy recommendation would be to release regulatory guidance documents that can help mitigating the procyclical behavior of IFRS 9. Additionally, it would be beneficial to carry out further research to determine whether these findings are applicable in other geographical regions.

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