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Regulatory bank stress test results: Do scenario characteristics and time horizons affect the market valuation of bank default risk?

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ABSTRACT

This paper is the first to analyze the impact of the results of the different regulatory bank stress test exercise scenarios and time horizons on the market's valuation of bank default risk. Using the 2014, 2016 and 2018 EU-wide stress tests and the full-term structure of the tested bank CDS spreads, we empirically investigate whether the outcomes of the different scenarios provide new information to market participants. During the calm period of the study, we find that the results of the scenario based on the most likely economic forecasts (baseline) are those considered by market participants rather than those of the extreme and harmful (adverse) scenario, regardless of the time horizon. The increase in the required risk premium is greater for short- and medium-term CDS than for long-term ones. Moreover, the stressed determinants of bank default risk are the usual ones, with the notable exception of Core Tier 1, which is not significant. Our findings have some policy implications for bank supervisors in the design and implementation of prudential regulation.

JEL Classification Numbers: G00, G14, G21, G28

Keywords: Banking Risks, Banking Supervision, Regulatory Stress Tests, CDS market

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1. Introduction

A regulatory stress testing exercise is a scenario-based supervision tool used by banking supervisors to assess and analyze the robustness of participating banks, in order to ensure that they have sufficient financial strength to absorb losses and to remain solvent and strongly capitalized, even in a distressed economic environment. Initially considered as a crisis management tool as it was carried out in the aftermath of the Global Financial Crisis in an attempt to restore investors' confidence in the soundness of the banking system, stress tests have continued to be performed during the post-crisis period and are now established as one of the main banking supervision tools. Their objective is to test, individually and as a whole, the resilience of participating banks to different forward-looking macroeconomic scenarios. In general, one can distinguish (i) a *baseline* scenario based on the most recent macroeconomic projections and (ii) an *adverse* scenario built as a "dark" scenario characterized by harmful but plausible financial and economic situations. Both scenarios are designed over three different time horizons (1-year, 2-year and 3-year) and each tested bank's financial strength is assessed at the level of each horizon. At the end of an exercise, a set of data that reflects the evolution of the financial health of each tested bank throughout the forward-looking scenarios (including data on capitalization, market risk, credit risk, counterparty risk, liquidity risk, operational risk...) is disclosed in a very detailed way, in addition to various reviewed financial data on tested banks.

There is an extensive literature on whether market participants take into account these disclosed outcomes in their assessment of banking risks (i.e. whether they derive new information from these outcomes). Most papers that examine European and American stress tests find significant reactions from market participants (stock market, CDS market...) following the disclosure, as they highlight significant abnormal movements in the (stock) prices and (CDS or bond) spreads of tested banks around the release date. These results show that stress testing exercises provide valuable information to market participants on the financial strength of tested banks, in addition to improving the quality and quantity of information available (among others, Petrella and Resti, 2013; Morgan *et al.*, 2014; Carboni *et al.*, 2017; Flannery *et al.*, 2017; Georgescu *et al.*, 2017; Ahnert *et al.*, 2018; Fernandes *et al.*, 2020 and Agbodji *et al.*, 2021).

However, to our best knowledge, no paper investigates the informative value of stress test outcomes according to the specificities and time horizons of the scenarios implemented; we aim to fill this void. The objective of this paper is therefore to go further than the existing literature by studying whether market participants derive new information from the outcomes of each of the two scenarios implemented during stress testing exercises and, if so, whether

this information differs depending on the scenario and the time horizon. In other words, since the *baseline* and the *adverse* forward-looking scenarios are not designed and elaborated in the same way, we consider distinctly the disclosed results of both in order to examine whether each explains the market reaction and whether their informative content² is identical or not, distinguishing the 1-year, 2-year and 3-year time horizons.

For this purpose, this paper studies the determinants of the abnormal movements in the CDS premium of tested banks following the disclosure considering all the different maturities of CDS (from 6-month to 10-year maturity). We consider Credit Default Swaps instead of stocks or bonds for three main reasons. First, CDS is a suitable instrument to use as it reflects the market perception of the financial strength of a reference entity, in line with the information transmitted following stress tests which highlights the ability of tested banks to absorb losses and to remain strongly solvent even in a distressed economic environment. Second, CDS spreads are a relatively pure pricing of default risk of the underlying entity (Zhang *et al.*, 2009), unlike bond spreads or stock prices, and they appear to react more accurately and rapidly to new information regarding the underlying entity, especially in the short run (Blanco *et al.*, 2005). Third, since the information disclosed following stress tests has different temporalities as it is provided for each time horizon of each scenario, to estimate whether and how market participants react to this disclosure, it is consistent to use instruments with different temporalities. Following Agbodji *et al.* (2021), we thus consider CDS as it has several maturities, unlike stocks. Bonds also have several maturities which, however, are not uniform across firms and vary considerably over time (Han and Zhou, 2015), unlike the maturities of the CDS contracts which are strictly standardized and fixed over time³.

We perform our empirical investigations based on EU-wide stress testing exercises conducted by the European Banking Authority (EBA) in 2014, 2016 and 2018. We do not consider the stress tests carried out before 2014 (the 2010 and 2011 tests) as during these exercises, the list of banking characteristics that were stress tested was very limited. By contrast, since 2014, this list has been expanded and is more uniform from one test to another, a major condition for the conduct of our empirical investigations. Regarding our sample, out of a total of 133 European banks that participated in at least one of these three tests, we select listed banks for which data on tradable CDS contracts are available for all the different CDS maturities, resulting in a total of 53 banks. We only study the European case and not the US one because

² We define the informative content of the disclosed stress tests outcomes as the set of information conveyed by these outcomes and which makes market participants react.

³ Since our empirical investigations are based on a group of tested banks, this represents a major advantage.

for each American stress test, the number of tested banks with available data on tradable CDS does not exceed 10, which is not sufficient to perform our empirical investigations.

Our results evidence that the drivers of the abnormal movements in the CDS premium following the disclosure of stress test outcomes differ considerably depending on the characteristics of the scenarios and the maturities of the CDS contracts, and provide new insights on the stress test outcomes that determine the market reaction. We find that the outcomes from the *baseline* scenario, the one based on the most recent economic forecasts, have far more impact on market participants than those of the *adverse* scenario whose extreme and harmful hypothesis seem much less credible and relevant in the post-crisis period of our study. Moreover, the information that explains the reaction of market participants is not the same from one CDS maturity to another, suggesting that the informative content of the disclosed outcomes differs depending on the investor horizon. It differs depending on whether one considers the short-term horizon (6-month, 1-year and 2-year) or the medium- or long-term horizon as the impact of the disclosed outcomes is more pronounced for the short-term CDS maturities than for the medium- or long-term ones, in line with the scenario horizons⁴. Going further, we find notably that the change in Common Equity Tier 1 ratio during the stress test does not influence market participants, unlike the change in several other common characteristics of tested banks. This may seem surprising and unanticipated at first since, in the large list of bank characteristics that are tested, CET1 ratio is one of the most important, if not the most important as its change under the scenarios summarizes most factors captured by stress testing exercises (profitability expectations, credit and market losses, etc...). We explain this finding by the relatively high level of capitalization achieved by the tested banks during the period from 2014 to 2018. Banks have had safety cushions large enough to absorb potential operating loss shocks, thereby ensuring a low risk of insolvency. To test the validity of this interpretation, we repeat our empirical investigations by considering the stress testing exercises carried out in 2010 and 2011, turmoil periods where tested banks were significantly less capitalized. The results support our above analysis as we find that market participants indeed reacted to the disclosure of stressed capital ratios, among others.

Our study contributes to the existing literature in the following ways. Firstly, to our best knowledge, this paper is the first to empirically examine whether the outcomes of each of the two stress test scenarios provide valuable information to market participants, and whether or not their informative content is identical depending on the different maturities of CDS and the scenario time horizons. This paper therefore attempts to improve the understanding of whether and how the information released following stress testing exercises determines the reaction of

⁴ Whatever the time horizon considered, the abnormal movements over short-term maturities are the best explained by stress test outcomes, compared to medium- or long-term maturities.

market participants to assess bank default risk, taking into account the specificities and the different time horizons of each implemented scenario. Hence, we contribute to the existing empirical literature on the informative value of regulatory stress tests (Sahin and Haan, 2016; Flannery *et al.*, 2017; Georgescu *et al.*, 2017; Ahnert *et al.*, 2018; Sahin *et al.*, 2020 and Agbodji *et al.*, 2021). Our findings have some policy implications for banking supervisors as they shed some light on the precise stress test scenarios and outcomes that influence market participants, depending on the time horizon and the test period (crisis or calm period). It can also help to better examine the informative value of future stress tests, and better understand the market response and the factors driving it. Secondly, this paper also contributes to the literature on the term structure of CDS spreads as it is the first to investigate whether the outcomes that explain the abnormal movements in CDS spreads differ depending on the maturity of the CDS contract. Thirdly, EU-wide stress tests are primarily focused on the assessment of the impact of all risk drivers on the solvency of banks. However, according to our findings, the change in common equity tier 1 ratio does not always influence market participants and to our best knowledge, this paper is the first to highlight that. This may have some implications for banking supervisors in the design of the methodology and the scenarios of future stress testing exercises. Fourthly, our study shows the usefulness of regulatory stress testing exercises, even outside crisis periods. There is always valuable information that is revealed to market participants, as our results prove. Hence, this paper also contributes to the debate on transparency in banking supervision (Jordan, 2000; Dudley, 2009; GAO, 2010 and Goldstein and Sapra, 2011) since our results show that the disclosure of stress test outcomes can help market participants to better assess and comprehend the risks and the value of tested banks. This, in turn, can help them better discriminate between strong banks and weak banks, which in the end strengthens market discipline (Flannery, 2001) and thus financial stability.

The rest of our paper is structured as follows. Section 2 first provides an overview of the related literature and then presents the research questions investigated. Section 3 introduces the sample of banks under consideration and describes the data and empirical approach. Section 4 presents our results while some robustness checks are discussed in Section 5. Section 6 finally concludes.

2. Related Literature and Research Question

There is a large empirical literature on the regulatory banking stress tests that have been carried out following the Great Financial Crisis of 2007–2008. Overall, the authors have been interested in their informative value by examining whether or not they provide valuable information to financial market participants.

Petrella and Resti (2013) investigate how the 2011 European stress test affects the stock market. After showing a significant reaction from market participants upon the disclosure of the results, they evidence in a multivariate analysis that this stock market response is primarily and significantly determined by the *adverse* scenario outcomes. Indeed, they show that the change in some characteristics of tested banks at the end of the *adverse* scenario (value at the end of the scenario in 2012 minus the value just before the test in 2010) are highly significant in driving the market reaction (e.g. the change in coverage ratio for credit exposures, the increase in the cost of funding...). Their results also suggest that a positive stock market reaction is significantly associated with a higher level of common equity tier 1 ratio prior to the exercise. Georgescu *et al.* (2017) find that new information was provided to the equity and the CDS market participants around the announcement of the key features of the 2014 and 2016 EBA stress tests. They also find that new information was provided following the disclosure of the results of these tests, and that it allowed markets to better discriminate between strong banks and weak banks. Indeed, authors show that under the *adverse* scenario, stock prices of banks that lost a large part of their Common Equity Tier 1 ratio (what prove their weakness) performed significantly worse than those of the stronger banks upon the publication of the 2014 test. In 2016, weaker banks experienced significantly higher positive abnormal CDS returns compared to better performing banks. Flannery *et al.* (2017), examining the nine US stress tests performed until 2015⁵, highlight significant reactions from the stock market participants following most of the exercises. By contrast, the participants in the CDS market only react to the 2009 Supervisory Capital Assessment Program (SCAP). They then find that banks with higher leverage have larger abnormal stock returns and larger abnormal trading volumes on disclosure dates, especially tested banks. Moreover, their results indicate that stress testing exercises are more informative about riskier banks in general. Focusing on six US Comprehensive Capital Analysis and Review (CCAR) and four EBA stress tests performed over the 2010–2017 period, Ahnert *et al.* (2018) suggest that stress testing exercises reduce bank opacity by improving the quality and the quantity of information available on the situation of tested banks. Hence, they allow markets to better discriminate between strong banks which are rewarded (positive abnormal equity returns and tighter CDS spreads) and weak banks which are sanctioned (significant drops in equity prices and widening CDS spreads). Afterwards, they find that at the time of publication, higher and positive equity market reaction is determined by higher capital buffer, higher asset quality, lower leverage, and a less risky business model. However, their results also show that none of the bank characteristics explain the abnormal (5-year maturity) CDS performance. This may be because authors consider

⁵ The 2009 Supervisory Capital Assessment Program (**SCAP**) ; the 2011, 2012, 2013, 2014 and 2015 Comprehensive Capital Analysis and Review (**CCAR**) ; and the 2013, 2014 and 2015 Dodd-Frank Act Stress Tests (**DFAST**).

solely the 5-year maturity CDS contract in their investigations. Questioning this choice, Agbodji *et al.* (2021) investigate the market response to 10 European and US regulatory stress tests, considering the eight different maturities of the CDS. Their results show that the information provided (after the disclosure of stress test results) is useful for all maturities of CDS, not just for the 5-year maturity. More precisely, they show that this information impacts differently spreads of CDS depending on the maturity considered. This suggests that market participants price the information provided depending on the maturity of the CDS contract, and therefore on their time horizon. Hence, to fully appreciate and evaluate the market response to a stress testing exercise, the authors recommend using not only the 5-year maturity CDS spreads, but also the CDS spreads of the remaining maturities, especially the short-term ones (6-month, 1-year, 2-year and 3-year maturities) which match with the time horizon of the scenarios.

In view of this finding, investigating the informative content of the disclosed stress test outcomes (i.e. the information that makes market participants react) considering the different maturities of CDS may provide new insight on the effectiveness of this supervision tool. To perform this investigation, it is more appropriate to consider the EU-wide stress tests conducted by the European Banking Authority in order to have a sufficient number of tested banks with available data on tradable credit default swaps (for all maturities from 6-month to 10-year).

EBA stress testing exercises are performed over two distinct forward-looking macroeconomic scenarios: a *baseline* and an *adverse* scenario. Provided by the European Commission, the *baseline* scenario is based on the most recent macroeconomic projections produced by the national central banks, prior to the stress test. In contrast, the *adverse* macro-financial scenario is a severe scenario, designed and built by the Task Force on Stress Testing of the European Systemic Risk Board (ESRB) in close collaboration with the European Central Bank (ECB). It outlines the evolution of key economic and financial variables in a hypothetical severely adverse situation capturing the materialization of relevant risks to which the EU banking system is exposed (ESRB, 2020, p. 1). Compared to the *baseline* scenario that is entirely based on national economic forecasts, the *adverse* one is built on severe economic and financial shocks that reflects the four systemic risks⁶ that are assessed (by the ECB) as representing the most material threats to the stability of the EU banking sector. In this regard, it is the one that provides information on the resilience of the tested banks throughout hypothetical extreme (but plausible) crisis periods, compared to the *baseline* scenario. Indeed,

⁶ (i) an abrupt reversal of compressed global risk premia, amplified by low secondary market liquidity; (ii) weak profitability prospects for banks and insurers in a low nominal growth environment, amid incomplete balance sheet adjustments; (iii) rising of debt sustainability concerns in the public and non-financial private sectors, amid low nominal growth; and (iv) prospective stress in a rapidly growing shadow banking sector, amplified by spillover and liquidity risk (European Systemic Risk Board, 2016, p. 1).

by simulating possible economic shocks, it is the one that most challenges the capital position and the financial health of EU banks. Each of the two scenarios is designed over three different time horizons (1-year, 2-year and 3-year).

Previous papers that examined EU-wide stress tests pointed it out and consequently consider the *adverse* scenario outcomes in their empirical investigations, instead of the *baseline* scenario outcomes (among others, Petrella and Resti, 2013). On another side, however, the *baseline* scenario being more plausible as corresponding to the most recent economic forecasts, one can argue that market participants will also be interested in it since it gives them insight into the possible financial health of tested banks over the next few years. Hence, there are arguments which support the two possibilities. This justifies our choice to consider distinctly the outcomes of both scenarios (for each of the three-time horizons) in order to examine whether each explains the reaction of market participants following the disclosure, and whether their informative content is identical or not. Furthermore, as the pricing by market participants of the information provided differs depending on the maturity of the CDS contract (Agbodji *et al.*, 2021), we also examine whether the stress test outcomes that explain this pricing (i.e. the reaction of market participants) vary depending on the maturity of the CDS contracts.

3. Sample, Methodology, and Data

In this section, we present respectively the sample on which this study is based, the methodology employed and the data used to perform our empirical investigations.

3.1. Sample

3.1.1. European Stress Tested Banks

The stress testing exercises we consider for this paper are the EU-wide stress tests conducted by the European Banking Authority in 2014, 2016 and 2018⁷. We do not include the 2010 and 2011 stress tests because they do not provide as much information as the following exercises since the list of banking characteristics that were stress tested was very limited, especially in 2010. By contrast, since 2014, this list has been considerably expanded and is more uniform from one test to another. The 2014, 2016 and 2018 stress tests therefore have in common most of the bank features that were stress tested including the most relevant (described in section 3.3.1), a major condition for the conduct of our empirical investigations⁸.

As a consequence, the selection of the banks included in our study sample is made based on the list of banks that have been stress tested during these three exercises. To ensure greater

⁷ There was an exercise carried out in 2023, too recent to be taken into account in our empirical investigations.

⁸ However, we later look at the 2010 and 2011 stress tests for further empirical investigations (section 5.1).

comparability while ensuring a significant coverage of EU banking assets, the EBA focuses only on large and significant banking institutions. To be included in the stress tested sample, banks have to have a minimum of 30 billion euro in assets, threshold which is consistent with the Single Supervisory Mechanism (SSM) definition of a significant institution. Hence, smaller banks are not included in EU-wide stress tests and are tested by their relevant competent authorities as part of the Supervisory Review and Evaluation Process (SREP). Each stress test covered broadly 70% of the national banking sector (as expressed in terms of total consolidated assets) of each participating country.

At the first stage of delimiting our sample, there are a total of 133 European banks (from 22 countries) that participated in at least one of our three stress tests. Then, using Bloomberg, we identify and remove banks without tradable CDS contracts, resulting in 59 banks. We also take out of the sample six banks for which no data is available over the whole period 2013-2018. In the end, our sample consists of 53 listed euro area large banks for which data on tradable CDS contracts are available (for all the different maturities of CDS)⁹. Appendix A provides the list of these banks, including their countries. It also provides some summary statistics of the total assets of all banks included in our sample, as well as the share of these assets compared to that of all banks covered in each stress test. These shares (respectively 78%, 82% and 77% for the 2014, 2016 and 2018 tests) evidence that banks included in our empirical analysis are representative of the total assets of all stress tested banks.

3.1.2. Maturity and Liquidity of CDS Contracts

Liquidity in the CDS market reflects the ease with which traders can initiate a contract at an agreeable price (Tang and Yan, 2007). The 5-year maturity CDS contract is generally considered to be, by far, the most liquid segment of the CDS market. This justifies its extensive use by the literature, rather than the other maturities' contracts. However, since this study considers all the different maturities of CDS (not just the maturity of 5-year), before using their spreads, we first analyze their liquidity.

To measure the liquidity of CDS contracts, following Tang and Yan (2013), Annaert *et al.* (2013) and Samaniego-Medina *et al.* (2016), we use the Bid-Ask spread of the CDS quotes, the most widely used CDS liquidity proxy in finance. Following Samaniego-Medina *et al.* (2016) and Arakelyan and Serrano (2016), we consider the absolute bid-ask spread (rather than the relative one) that we compute on a daily basis. According to Pires *et al.* (2011) and Coro *et al.* (2012), the absolute bid-ask spread is already a proportional measure. As liquidity increases,

⁹ In this study, we consider European stress tests rather than American ones because the number of listed US banks that were tested and for which data on tradable CDS contracts are available (for all the different CDS maturities) is not sufficient to perform our empirically investigations. It does not exceed 10 whatever the test considered.

the size of the bid-ask spread narrows. Appendix B provides some summary statistics of the absolute bid-ask spreads of all CDS in our sample, for each maturity and each year from 2010 to 2018. Following Agbodji (2022), we calculate a “BAS Ratio” statistic which is the average bid-ask spread of a given maturity divided by that of the 5-Year maturity. This will allow us to compare the liquidity of the different maturities with each other. A BAS Ratio equal to one means that the corresponding maturity is as liquid as the 5-year maturity. When higher (lower) than one, this means that the maturity is less (more) liquid than the 5-year maturity.

Over the period from 2010 to 2013, the higher the CDS maturity, the greater its liquidity in general and the most liquid maturities are that of 10-year, 7-year and 5-year. However, over the study period from 2014 to 2018, the differences in liquidity between the CDS maturities have considerably narrowed¹⁰ and have almost disappeared since 2014. Furthermore, the most liquid maturity in 2015, 2017, and 2018 is not the 5-year one, but rather the 1-year maturity (in 2015 and 2017) and the 6-month maturity (in 2018). This is in line with Agbodji (2022) who, considering a larger sample of EU banks over a longer period (2010-2019), comes to the same conclusions. Our descriptive analysis therefore shows that over our study period, the different maturities of CDS can be regarded as liquid as the 5-year one.

3.2. Empirical Investigation Design

We carried out several empirical investigations that can be broadly divided into two groups: (1) *an event study* that capture the market reaction to the publication of stress test results and (2) *a multivariate regression analysis* where we extensively examine the drivers of this reaction.

3.2.1. Event Study Methodology: Calculating the Cumulative Abnormal Returns (CARs) of CDS Spreads.

Employing an event study methodology (Brown and Warner, 1985; and Campbell, Lo, and MacKinlay, 1997), we capture the market reaction by calculating the Cumulative Abnormal CDS spreads Returns (CAR) over a relevant window around the release date τ (“*event window*”) of stress tests results. If market participants deem the information provided as valuable, they may price it and integrate it into the spreads of CDS of tested banks. These spreads will therefore experience abnormal movements, which are precisely what the CAR measures. CARs are computed for all the different maturities of CDS (from 6-month to 10-year maturity). More precisely, we proceeded as follows.

¹⁰ Whatever the maturity considered over this period, the BAS Ratio is either equal to one or very close to one, especially from 2015.

(i) Events and Event window

In this paper, we consider as "event" the stress test results' disclosure. Since the results are published after market close, we do not consider the date of the disclosure as the event date, but rather the next available trading day following Petrella and Resti (2013), Flannery *et al.* (2017), Ahnert *et al.* (2018) and Agbodji *et al.* (2021). Table 1 reports, for each test, the disclosure date of the results and the corresponding event date. We focus on a four-day event window that includes the trading day before the event date, the event date τ and the two following trading days ($\tau-1$, τ , $\tau+1$, $\tau+2$). Indeed, as in Petrella and Resti (2013), we consider the two trading days following the event date to take into account the possibility that investors do not react immediately to fully impound the information provided (Krivin *et al.*, 2003). We stop at $t + 2$ to eliminate the risk that our results be disturbed by subsequent news. But, unlike Petrella and Resti (2013), we decide to take into account at least the trading day before the event date τ in order to allow for potential leaks before the disclosure.

(ii) Estimating the abnormal return $AR_{i,t}$

To obtain the Cumulative Abnormal (CDS spreads) Returns of a bank i using a CDS maturity j ($CAR_{i,j}$), we first measure its abnormal return $AR_{i,j,t}$ over each date t of the event window as the difference between the observed CDS spread return $R_{i,j,t}$ and the return that would be expected if the event did not take place $\hat{R}_{i,j,t}$.

$$AR_{i,j,t} = R_{i,j,t} - \hat{R}_{i,j,t}. \quad (1)$$

To estimate the latter, following the recent stress test literature (Campbell *et al.*, 2010; Morgan *et al.*, 2014; Alves *et al.*, 2015; Sahin *et al.*, 2020; Flannery *et al.*, 2017 and Ahnert *et al.*, 2018; Agbodji *et al.*, 2021), we use a market model (equation 2) over a 120-trading days window (from $\tau-130$ to $\tau-11$).

$$R_{i,j,t} = \alpha_i + \beta_i RM_{j,t} + \varepsilon_{i,t} \quad (2)$$

where $R_{i,j,t}$ is the daily CDS spread return of bank i , for the maturity j at date t and $RM_{j,t}$, the daily CDS index (CDX) spread return for the maturity j at date t ¹¹.

From the Bloomberg terminal, we collect daily data on senior CDS for each of the participating banking institutions in our sample and for the CDS index, namely the *Markit iTraxx Europe Investment Grade Index* which, however, has only four maturities available (3, 5, 7 and 10 years). Therefore, following Agbodji *et al.* (2021), we first compute the 4Y daily CDX spreads by taking for each date the average between the 3Y and the 5Y CDX spreads and, for the

¹¹ Following Morgan *et al.* (2014) and Flannery *et al.* (2017), we compute $R_{i,j,t}$ ($RM_{j,t}$) by transforming into logarithmic returns the MID spreads of CDS (CDX). The MID spread of CDS (CDX) corresponds to the average between the BID and the ASK CDS (CDX) quotes.

remaining unavailable maturities (6-month, 1-year and 2-year), we assigned them the spreads of the nearest available maturity, namely the spreads of the 3-year maturity.

(iii) Calculating the Cumulative Abnormal Returns (CAR_i)

Finally, we calculate the Cumulative Abnormal (CDS spreads) Returns CAR_{i,j} by summing the Abnormal Returns AR_{i,j,t} over the four-day event window of each stress test :

$$CAR_{i,j}(-1; +2) = \sum_{t=\tau-1}^{\tau+2} AR_{i,j,t} \quad (3)$$

We thus compute eight different CARs considering each of the eight CDS maturities. All the estimations are done using the "eventstudy2" module in Stata (Kaspereit, 2019).

3.2.2 Multivariate Regression Analysis: Explaining the Cumulative Abnormal Returns (CARs) of CDS spreads

Then, to determine whether and how the outcomes of the *baseline* and the *adverse* scenario each influences the spreads of CDS of tested banks, considering the different time horizons, we run a panel regression over the three event dates with the market reaction (CARs) as the dependent variable. We regress the latter on a set of stressed indicators (that quantify the increase or decrease in the leading characteristics of tested banks during the stress tests) and several control variables. The reference model is as follows:

$$CAR_{i,j,y} = \alpha + \beta X_{i,y}^{Sc,H} + \gamma Y_{i,y} + \lambda Z_{i,y} + \varepsilon_{i,y} \quad (4)$$

From equation 4, CAR_{i,j,y} is the market response to the divulgation of the year *y* stress test outcomes about bank *i*, and estimated using the *j*-year maturity CDS spreads. $X_{i,y}^{Sc,H}$ corresponds to a set of stressed indicators about bank *i*, considering the *H*-year horizon ($H = [1,2,3]$) of the scenario *Sc* ($Sc = [Baseline, Adverse]$) of the year *y* stress test. $Y_{i,y}$ is a set of observable specific-characteristics of bank *i* and $Z_{i,y}$ a set of characteristics of the market and the country of bank *i*, all measured over the most recent year prior to the disclosure of stress test results.

3.3. Explanatory Variables

In what follow, we describe the explanatory variables of our reference model and their theoretical or empirical relations to CDS spreads. We also present the descriptive statistics of all variables, after analyzing the correlations among regressors.

3.3.1. Bank Indicators Built from Stress Test Results

In the databases released following the 2014, 2016 and 2018 EU-wide stress tests, the assessed characteristics of banks are divided into five categories: (i) *Capital*, (ii) *Risk Exposure*

Amount, (iii) *Profit & Loss*, (iv) *Credit risk* and (v) *Sovereign*. Even if the content of these categories has been modified through the different stress test exercises, there are however several common characteristics between the three tests. We focus on the most relevant ones based on the literature and on the EU-stress test documents. To keep under control multicollinearity issues, we also focus on variables which are not embedded into each other. For each of the selected characteristics of banks, we compute and consider a stressed indicator which quantify the impact of the stress test scenarios, i.e. the change in the characteristic caused by the simulated scenarios (value at the end of the stressed period minus the value just before the test).

(i) Capital

EU stress tests are primarily focused on the assessment of the impact of risk drivers on the solvency of banks (EBA Methodological Note, 2016, p.13). In the large list of tested characteristics (as the Tier 1 Ratio and Capital, the Total Capital Ratio and Capital, the Additional Tier 1 Capital, the Tier 2 Capital, the Retained earnings...), we selected the "*Common Equity Tier 1 (CET1) Ratio*" which is the highest quality capital adequacy ratio. It is also the most important since, as stated by Petrella and Resti (2013), its change under the scenarios summarizes most factors captured by the stress testing exercise (profitability expectations, credit and market losses, etc...). This is also why it was considered as a trigger by supervisors and widely used in the literature compared to the remaining tested capital ratios¹². A decrease in the CET1 ratio following the simulated scenarios should lead to a higher CDS spreads (and vice versa).

(ii) Risk Exposure Amount / Credit risk

In the risk coverage approach of EU stress tests, participating banks are required to stress test three common set of risks, namely credit risk (including securitizations), market risk (and counterparty credit risk) and operational risk including conduct risk (EBA Methodological Note, 2016). We therefore consider, as second stress tested characteristic, the change in the "*Total Risk Exposure Amount*" (following Petrella and Resti, 2013). It is the sum of the credit, market, and operational risk exposures and it indicates change in risk profile of asset portfolio of the bank. Following Petrella and Resti (2013) and Flannery *et al.* (2017), we use the ratio of total risk exposure to total assets which provides a measure of riskiness of assets. An increase in this ratio (at the end of the simulated scenarios) indicates a deterioration of overall risk profile of bank assets and should lead to an increase in CDS spreads, and vice versa.

¹² As robustness checks, we redo our estimates using the "*Tier 1 Ratio*" or the "*Total Capital Ratio*" instead of the "*Common Equity Tier 1 Ratio*". As all the results are similar, we report only those of the mainstream model using the "*Common Equity Tier 1 Ratio*". Robustness check estimates are however available from the authors upon request.

(iii) Profit & Loss

In addition to the risks listed above, participating banks are requested to project the effect of the two scenarios on "*Net Interest Income*", on "*Profit & Losses*" and on capital items not covered by other risk types (EBA Methodological Note, 2016, p.13). Hence, we also consider the change in the "*Net interest Income*" and in the "*Profit & Losses*", both scaled by the total assets of tested banks. These variables allow us to take into account the evolution of the profitability of participating banks. A decrease in these ratios at the end of the simulated scenarios should lead to an increase in CDS spreads. Finally, we consider the "*Accumulated other comprehensive income*" which corresponds to unrealized profits or losses (also scaled by the total assets of tested banks), even if the direction of its latent impact is difficult to predict.

3.3.2. Control Variables at the Bank Level

To control for specific characteristics of tested banks, we insert in our model several regressors commonly used in the literature on the determinants of CDS spreads (Ericsson *et al.*, 2009; Hasan *et al.*, 2014; and Drago *et al.*, 2017, among others).

(i) Leverage

The leverage captures bank indebtedness and risk appetite. Too much debt relative to equity can result in a bank failure. Indeed, according to Merton's approach, higher leverage indicates a shorter distance to the default barrier and a higher probability of default (Galil *et al.*, 2014). To control for it, we use the "ratio of liabilities to the sum of liabilities and equity" following Drago *et al.* (2017), among others. The higher this ratio, the higher the CDS spreads.

(ii) Asset quality

Asset quality measures the quality of bank investments, loans and other assets that could affect its financial condition. Banks with high-quality assets should have a lower probability of default and therefore lower CDS spreads, even when controlling for structural model variables (Hasan *et al.*, 2014 and Drago *et al.*, 2017). To proxy for it, we use the "ratio of non-performing loans to total assets". The lower the proxy, the higher the asset quality, so the lower the CDS spreads.

(iii) Management quality

Management quality refers to the ability of the bank to correctly identify, manage, and control the risks specific to its activities. As an inverse proxy for management quality, we use the "cost efficiency ratio" which is the ratio of operating expenses to total revenues. This ratio should be positively and significantly related to bank CDS spreads as shown by Hasan *et al.* (2014).

(iv) Sensitivity to market risk

The sensitivity to market risk reflects the degree to which changes in interest rates can adversely affect the earnings or capital of a bank. To proxy for it, we use the cost of funds (i.e. the ratio of interest expense to total liabilities). According to Hasan *et al.* (2014), banks with higher cost of funds are more sensitive to changes in interest rates and therefore are more vulnerable to changes in market conditions. Consequently, higher cost of funds means higher CDS spreads.

(v) Size

According to Drago *et al.* (2017), bank size can capture the ability of the bank to diversify risk through economies of scope, and market participants may deem large banks too big to fail. We therefore consider it and use the natural logarithm of bank total assets to proxy for bank size, expecting a negative impact of the size of a bank on its CDS spreads.

(vi) Funding stability

Funding liquidity is measured by the ratio of deposits to total liabilities. Since retail deposits are a relatively stable source of funding, the higher this ratio, the lower the spreads of CDS.

(vii) Liquidity

Liquidity is a measure of the cash and other assets banks have available to quickly pay bills and meet short-term business and financial obligations (Federal Reserve). According to Corò *et al.* (2013), firm-specific liquidity factors are critical determinants of CDS spread variations. To control for it, we use the ratio of net loans to deposits and short-term funding following Kosmidou (2008) and Naceur and Kandil (2009). The higher the value of the ratio, the lower the bank liquidity. Hence, bank CDS spreads should be positively related to this ratio.

3.3.3. Macroeconomic Control Variables

Since our sample includes 14 countries, we also add controls for the specific market and country characteristics of tested banks. Several papers (Ericsson *et al.*, 2009; Zhang *et al.*, 2009; Corò *et al.*, 2013; Hasan *et al.*, 2014; and Samaniego-Medina *et al.*, 2016...) show that CDS spreads are affected by business climate and economic conditions. Consequently, we use the following macroeconomic variables to control for the variation in business and economic conditions over time.

(viii) Risk-free interest rate

The risk-free rate is a major determinant of CDS spreads. The literature highlights a negative relationship between this variable and CDS spreads. We therefore control for it using the 10-year government bond yield.

(ix) Economic Environment

A higher stock market returns suggest an improved economic environment and is therefore associated with a reduction in CDS spreads. To control for it, we employ country-specific stock market indexes.

(x) Stock market volatility

The stock market volatility captures the uncertainty that surrounds economic prospects, and a greater market volatility may imply a higher probability of default and thus an increase in bank CDS spreads. We take it into account and calculate it as the historical standard deviation of bank's market daily returns over the most recent year prior to the disclosure.

Table 2 summarizes the above explanatory variables, the expected direction of their impact (expected sign) and the data sources.

3.4. Multicollinearity diagnostics and summary statistics

In Table 3A, we present the matrix of the bivariate correlations among all explanatory variables, with below (over) the diagonal, the correlations for the baseline (adverse) stressed indicators. These correlation coefficients are computed considering the 2-year horizon stress test outcomes¹³ and are very low in a vast majority of cases. Only 4 out of 165 coefficients exceed 0.5 (but under 0.6). Furthermore, multicollinearity seems unlikely to be a problem in our regressions, but we check it by carrying out a Variance Inflation Factors (VIFs) analysis (Liao and Valliant, 2012; Miles, 2014) whose results are reported in Table 3B. Whatever the scenario or the time horizon considered, the VIFs are all below 2,08 (it varies from 1,83 to 2,07) confirming that potential issues of multicollinearity are kept under control.

Finally, we provide in Table 4 the summary statistics of stressed indicators for each time horizon, and Table 5 presents the summary statistics of control variables over the period from 2013 to 2018.

4. Empirical Results

Before presenting the estimates of our reference model (equation 4), we analyze the dependent variable. More precisely, we analyze the market reaction to the disclosure of stress test results and perform several significance tests in order to establish its statistical validity. Hence, considering each CDS maturity, we calculate the Cumulative Average Abnormal Returns (CAARs) which is the average of the CARs of participating banks and which captures the market reaction. Then, to test whether the latter is statistically significant or not, we employ

¹³ The released stress test data are estimated over 3 different time horizons (1-year, 2-year and 3-year). Since the correlation tables are very similar from one horizon to another, we choose to present only the 2-year time horizon one. However, the 1-year and 3-year time horizon correlation tables are available on request.

three parametric tests and three non-parametric tests. As parametric tests, we use the standardized abnormal return test developed by Patell (1976), the standardized cross-sectional test (BMP test) developed by Boehmer, Musumeci and Poulsen (1991) and the Kolari-Pynnonen test (or the adjusted standardized cross-sectional test) developed by Kolari and Pynnonen (2010). As non-parametric tests, we use the Wilcoxon (1945) signed-ranks test, the Cowan (1992) generalized sign test and the Kolari and Pynnonen (2011) generalized rank test (GRANK test). The latter, to our best knowledge, is the most reliable test available as it dominates all parametric tests as well as the Corrado (1989) and the Corrado and Zivney (1992) rank tests (Kolari and Pynnonen, 2011). The results are presented in Table 6 which also provides some summary statistics of the CAARs.

According to these results, market participants react significantly following the disclosure of the 2014, 2016 and 2018 stress tests. All CAARs are negative and significant whatever the CDS maturity used, showing that, on average, the CDS spreads of tested banks decrease abnormally and significantly following the disclosures.

The estimates of our reference model are reported in tables 7, 8 and 9 which present our findings respectively for the 1-year, 2-year and 3-year scenario time horizon. Following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics and to improve the efficiency of our estimates¹⁴. In each of the tables 7, 8 and 9, we have two distinct series of regressions using either the *baseline* scenario outcomes or the *adverse* scenario outcomes to compute the stressed indicators.

4.1. Baseline Scenario vs. Adverse Scenario.

First of all, considering the adjusted R-squared, one can notice that the *baseline* regression series appear to better explain the variation in the market reactions (CARs), compared to the *adverse* scenario series. More precisely, considering the 1-year time horizon (Table 7), our model explains on average 34% of the variation in CARs when we consider the *baseline* scenario, with a maximum of 49%. For the *adverse* scenario, this rate drops to 22% with a maximum of 45%. For the 2-year time horizon (3-year time horizon), 35,7% (31,1%) of the variation in CARs is explained by our model for the *baseline* scenario, with a maximum of 52% (47%). This rate then drops to 21,3% (19,9%) with a maximum of 50,3% (47,9%) when we consider the *adverse* scenario.

¹⁴ After controlling for bank fixed effects, our model fit increases very substantially, regardless of the maturity or the time horizon considered. It therefore exists some unobserved time-invariant bank characteristics that have important explanatory power for the market reactions to stress test results, whatever the maturity or the time horizon.

According to our results, whatever the time horizon considered, the impact of the *baseline* scenario on the characteristics of tested banks is highly significant in driving the market reactions, unlike the impact of the *adverse* scenario. More precisely, on average over the eight maturities, the number of stressed indicators that significantly explains the CARs is much greater in the *baseline* scenario (close to 3 for the 1-year horizon, close to 4 for the 2-year and 3-year horizon) than in the *adverse* scenario (close to 1 for each horizon). These indicators lose their explanatory power when we consider the *adverse* scenario outcomes¹⁵ and this is confirmed when we estimate the joint significance of stressed indicators for each time horizon of both scenarios. Wald tests are significant at least at 10% respectively for 8, 7, 6 maturities at the 1-year, 2-year and 3-year horizon year in the *baseline* scenario regression, against respectively 3, 0, 0 maturities in the *adverse* scenario regression. Our results therefore suggest that unlike the *adverse* scenario outcomes, the *baseline* scenario outcomes strongly and significantly explain the market reactions whatever the time horizon considered, thus suggesting that the market reactions to the disclosure of stress test results may be driven primarily by the *baseline* scenario outcomes.

Our results clearly show that the outcomes of the *baseline* scenario have far more impact on market participants, compared to those of the extreme and harmful scenario which, considering the post-crisis period of the tests, probably seems too excessive to really be taken into consideration. We therefore support that the 2014, 2016 and 2018 EU-wide stress testing exercises provide relevant information to market participants, information that is predominantly generated by the *baseline* macroeconomic scenario. However, the term structure of CDS spreads matter.

4.2. Short-Term CDS Maturities vs. Medium and Long-Term CDS Maturities

Our results show that the stress test outcomes do not provide the same level of information, depending on the maturities of the CDS contracts. By focusing on the *baseline* scenario, we find that the explanatory power of stressed indicators is not the same for all maturities of CDS. An overview of the three different time horizons in tables 7, 8 and 9 shows that 3 or 4 out of the five indicators strongly drive the market reactions over the three lowest maturities (6-month, 1-year and 2-year), against 2 or 3 for the medium ones (3-year and 4-year) and 0,1,2 or 3 for the highest ones (5-year, 7-year and 10-year). Whatever the time horizon of the scenario, the market reactions over the shortest maturities are the best explained by stressed indicators, particularly for to the 2-year and 3-year time horizons. We therefore support that the informative content of stress testing exercises may differ depending on the maturity of the CDS contract

¹⁵ In some adverse regressions, one indicator may be statistically significant. When considering the 5-year maturity in Table 8, we exceptionally have two stressed indicators that show moderate statistical significance.

and so, on the investor horizon, the short-term horizon appearing to be the most provided in informational content. This may be explained consistently by the fact that the stress test outcomes only cover horizons from 1 to 3 years; hence, information provided is more robust and abundant over these short horizons compared to the longest ones. However, this finding does not change whatever the scenario time horizon considered, thus suggesting that market participants give quite equal importance to the three scenario horizons.

Among the eight maturities of CDS that we consider in our empirical investigations, the 5-year maturity is the one that is commonly used in the literature as it is generally considered to be the most liquid segment of the CDS market (among others, Völz and Wedow, 2011; Annaert *et al.*, 2013). However, according to our results, the market reaction over this maturity is the one that is less explained by the stress test outcomes, whatever the scenario time horizon, with respectively 1, 2, 0 significant stressed indicators for the 1-, 2-, 3-year horizon. This finding is interesting insofar as it questions the sole use of the 5-year maturity in the study of the market reaction and its determinants (among others, Flannery *et al.*, 2017; Georgescu *et al.*, 2017; Ahnert *et al.*, 2018). Indeed, the only consideration of the 5-year maturity in our investigations would have led us to two possible conclusions: either the market reaction is not explained by the disclosed stress test information, or it is but in a limited way. This is clearly not the case as our results show it. Our findings therefore complement the works of Agbodji *et al.* (2021) as it shows that researchers must consider several maturities (especially short-term maturities) when investigating the market reaction to stress tests and the drivers of this reaction.

4.3. Market reaction to specific Bank Stressed Indicators

In each of the tables 7, 8 and 9, still focusing on the *baseline* case, all significant stressed indicators have the expected sign whatever the scenario time horizon. More precisely, an increase in the Cumulative Abnormal CDS spreads Returns (CARs) is significantly associated with an increase in the Total Risk Exposure Amount ($\Delta Total Risk$), whatever the CDS maturity considered. It is also significantly associated with a decrease in Net interest Income ($\Delta Net Int Inc$) in the vast majority of cases and a decrease in Profit & Losses ($\Delta P\&L$) but only over the shortest maturities (6-month, 1-year and 2-year maturities). Finally, the Accumulated other comprehensive income ($\Delta Accumul Income$) impacts positively the CARs only over the 2-year scenario (except for the 6-month and the 5-year maturity) and over the 3-year scenario (except for the 5-year maturity).

However, our results also show that the market does not react, whatever the CDS maturity or the scenario time horizon, to the change in the common equity tier 1 ratio. This is unanticipated as in the large list of bank characteristics that were stressed, the common equity tier 1 ratio is

considered as the most important as its change under the scenarios summarizes most factors captured by the stress testing exercises (profitability expectations, credit and market losses, etc...). Also, EU stress tests are primarily focused on the assessment of the impact of risk drivers on the solvency of banks (EBA Methodological Note, 2016, p.13). Hence, one would have expected that the change in the common equity tier 1 ratio would be a major determinant of the market reaction. It is not the case. We explain this finding as follows.

Our study is based on the 2014, 2016 and 2018 EU-wide stress testing exercises implemented after the global financial crisis of 2007–2008 and the Great Recession that followed, and after the European debt crisis of 2010-2012. European banks, which entered these crises with insufficient quantity and quality of capital were severely impaired¹⁶. Hence, to correct the weak capital regulation that existed and to reinforce banks, European regulators adopted the *Capital Requirements Regulation and Directive* (CRR/CRD IV package) which transposed into EU law the Basel III agreement, and which has been formally applied since January 2014. Even if the implementation of the new regulatory framework was gradual, European banks significantly increased their capital ratios as shown in Appendix C which reports the summary statistics of the annual capital ratios of tested banks (Common Equity Tier 1 ratio and Tier 1 capital ratio) for the year preceding each stress tests and the year of the test. The three stress tests that we consider in our empirical investigations were therefore carried out with very well capitalized EU banks, whether quantitatively or qualitatively. Consequently, according to us, the change in common equity tier 1 ratio (which is by far the "flagship" indicator disclosed) does not determine the market reaction because of the high level of capitalization of tested banks. Indeed, with high equity capital, tested banks have a safety cushion capable of absorbing significant operating loss shocks, and thus ensuring a low risk of insolvency. The level of stressed capital adequacy ratio loses its predictive power when it remains very high. That may be why market participants do not react to its variation insofar as the risk of bankruptcy is kept under control.

Given our results (specifically the fact that the *adverse* scenario outcomes and the change in CET1 ratio do not determine the market reaction) which are contrary to those of previous papers that focused on the 2010 and 2011 EU-wide stress tests (among others, Petrella and Resti, 2013), we repeat our empirical investigations considering these two exercises. Overall, the number of banking characteristics that were stress tested during the two exercises was very limited, especially in 2010. As a result, we only consider as stressed indicators the change in the "*Tier 1 ratio*" (as it is the capital ratio that was stress tested in 2010) and the change in the "*Total Risk Exposure Amount*". We do not consider the three remaining indicators since

¹⁶ EU governments were forced to provide unprecedented support to banks to protect and preserve the whole financial system and the real economy.

they were not available. Also, because of a limited number of observations, we cannot use all the control variables of our reference model. We therefore keep those that are significant. As bank-specific control variables, we keep "*Leverage*", "*Size*" "*Funding Stability*", and "*Asset Quality*". As macroeconomic control variables, we keep "*Risk-Free Rate*" and "*Economic Environment*". We then gradually remove those that are not statistically significant after the estimations.

The results obtained are presented in the different tables of Appendix D¹⁷. They show that in 2010, market participants took into account not only the *baseline* scenario outcomes, but also the *adverse* scenario outcomes. We can suppose that, the *adverse* scenario outcomes were considered by market participants during this test because 2010 was a year of great stress on financial markets. In times of stress or panic (and this was the case in July 2010), the *adverse* scenario may be more credible because it is likely to materialize. Consequently, it will matter for market participants which will therefore take it into account. On the other hand, in times of calm, it will no longer have the same importance for market participants insofar as the probability of it occurring is much lower; this may explain the fact that from the 2014 test, the market reaction is no longer determined by it. Moreover, market participants attached great importance to the change in the Tier 1 ratio of tested banks in each of the two scenarios implemented. We can also suppose that the change in the Tier 1 ratio of tested banks were considered by market participants because of the weak level of capitalization of these banks during this period. Equity capital could not serve as a safety cushion absorbing the operating loss shocks, thus leading to a high risk of bankruptcy. Finally, the current model being different from our main model, one might suspect that our findings when considering the 2010 stress test are only due to the model difference. Hence, we have redone the estimations for the 2014, 2016 and 2018 tests using the current model. The results obtained are presented in Table D.7 of Appendix D and our conclusions do not change. Since the 2014 test, market participants no longer consider the *adverse* scenario outcomes and their reactions no longer depend on the change in the capital ratio of tested banks.

When considering the 2011 test results, whatever the scenario considered, none of the regressions are statistically significant. This means that the market reaction to this test is not driven by any of the disclosed outcomes, but by other factors. This result may be explained by two factors. Firstly, the credibility of the 2011 test that may have been affected adversely by the run-on Irish banks that had passed the 2010 stress tests. Secondly, around the event date (July, 18), there was a financial panic that was generated by new concerns about European

¹⁷ Tables D.1, D.2 and D.3 apply to the 2010 EU-wide stress test, while Tables D.4, D.5 and D.6 apply to the 2011 exercise. In Tables D.1 and D.4, we consider all the selected control variables. In Tables D.2 and D.3 (D.5 and D.6), we remove those that are not statistically significant in Table D.1 (Table D.4).

debt, particularly Greek debt. The result may be due to considerable governance challenges that prevented the test from addressing rising market concerns about the recapitalization needs from losses in their sovereign exposures (Candelon and Sy, 2015).

5. Robustness Checks

In this section, we conduct some additional investigations to test the robustness of the results from our reference model.

5.1. Model without non-significant control variables

To check the robustness of our results, we re-estimate our reference model without the non-significant control variables. The results obtained are presented in Appendix E and our main findings remain consistent. Firstly, whatever the time horizon considered, market investors react highly to the *baseline* scenario and not that much to the *adverse* scenario in general. Secondly, our results show that the explanatory power of the indicators is not the same for all CDS maturities. Tables E.1, E.2 and E.3 show that market participants are more sensitive to stressed indicators for the three shortest CDS maturities (3 to 4 stressed indicators are significant) while for the remaining maturities, less stressed indicators significantly drive their reactions (1 to 3 indicators). Finally, the market reaction over the 5-year maturity remains the one that is less determined by the *baseline* scenario outcomes compared to the other CDS maturities and whatever the time horizon. The information provided by the stress tests impact more strongly those other maturities.

5.2. Additional Robustness Checks

To check the robustness of our results (presented in Tables 7, 8 and 9), we perform some additional tests by employing a number of different specifications regarding the dependent variable (the market reaction).

We first consider alternative event and estimation windows in the market reaction calculation process. More precisely, we consider the (t-2; t+2) event window and a shorter estimation window of 84-trading days (following Covi and Ambrosini, 2016).

On the one hand, the results obtained (from the alternative event and estimation windows) strongly confirm that, regardless of the time horizon considered, only the results of the *baseline* scenario drive the market reactions, especially over short term CDS maturities. When analyzing how stressed indicators drive the market response, the new estimates when using the 84-trading days window are very similar to our results (almost the same), except for the impact of the Accumulated other comprehensive income (Δ Accumul Income). The latter loses its significance and no longer determines the market reaction, whatever the time horizon. For

the other indicators, there is almost no change in the direction or the significance of their impact.

Using the market reaction calculated over the event window (t-2; t+2), the new estimates obtained are very close to our results. We observe some reduction or loss of significance at the level of some CDS maturities but in general, the results obtained are in line with our main findings.

6. Conclusion

The objective of this paper is to analyze the informative value of the outcomes of the *baseline* and *adverse* scenarios following the disclosure of stress test results, taking into account the different time horizons and the influence of the term structure of bank CDS spreads. As the two scenarios are not designed and elaborated in the same way, we examine whether and how their disclosed outcomes each determines the abnormal movements in the CDS premium, and whether their informative content is identical or not considering all CDS maturities available on the market (6-month, 1 year, 2 year, 3-year, 4-year, 5-year, 7-year, and 10-year). Based on the 2014, 2016 and 2018 EU-wide stress tests, we first estimate the market response to these tests. We then regress it on the stressed indicators of participating banks and several control variables. These indicators, which are computed based on the stress test outcomes, measure the impact of the two stress test scenarios on tested banks' characteristics (*Common Equity Tier 1 Ratio, Total Risk Exposure Amount, Profit & Losses, Net interest Income and Accumulated other comprehensive income*), considering each time horizon.

Our results show that the market reaction to assess bank default risk following the disclosure of the stress test results is predominantly driven by the *baseline* scenario, regardless of the time horizon considered. This suggests that market participants do not assess the information content of the *baseline* and *adverse* scenario results equally. The EU-wide stress tests provide the market with new information on the risk and financial situations of the stress tested banks, which is derived from the *baseline* macroeconomic scenario. One can suppose that market investors do not value the extreme and adverse scenario, as it is the least likely to happen. Our results also suggest that the information provided differs depending on the maturity of the CDS spread. Finally, market investors usually do not respond to a reduction in the common equity tier 1 ratio, regardless of the scenario and the time horizon considered. This might be explained by the high level of capitalization of the tested banks during the period studied, which ensures a low risk of insolvency.

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Tables

Table 1: The disclosure date of EBA stress test results and the corresponding event date.

Stress Test	Release Date	Event Date
2014 EU-wide Stress Test	Sunday, 26 October 2014	Monday, 27 October 2014
2016 EU-wide Stress Test	Friday, 29 July 2016	Monday, 01 August 2016
2018 EU-wide Stress Test	Friday, 02 November 2018	Monday, 05 November 2018

Source: European Banking Authority (EBA) and Authors' calculation.

Table 2: Description, expected coefficient sign, and data sources of explanatory variables.

Explanatory variables	Notation	Description	Expected sign	Data Source
Stress test outcomes				
Common Equity Tier 1 Ratio	Δ CET1 Ratio	Change in common equity tier 1 ratio caused by the simulated scenarios.	-	eba.europa.eu
Total Risk Exposure Amount	Δ Total Risk	Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets.	+	eba.europa.eu
Profit & Losses	Δ P&L	Change in profit and losses caused by the simulated scenarios, scaled by total assets.	-	eba.europa.eu
Net Interest Income	Δ Net Int. Inc.	Change in net interest income caused by the simulated scenarios, scaled by total assets.	-	eba.europa.eu
Accumulated other comprehensive income	Δ Accumul Income	Change in accumulated other income caused by the simulated scenarios, scaled by total assets.	+/-	eba.europa.eu
Bank-level characteristics				
Leverage	Leverage	Ratio of liabilities to the sum of liabilities and equity.	+	Bankscope / BankFocus
Management quality	Managmt Quality	Cost efficiency ratio (Ratio of operating expenses to total revenues).	+	Bankscope / BankFocus
Size	Size	Natural logarithm of bank total assets.	-	Bankscope / BankFocus
Funding stability	Funding Stability	Ratio of deposits to total liabilities.	-	Bankscope / BankFocus
Asset quality	Asset Quality	Ratio of non-performing loans to total assets.	+	Bankscope / BankFocus
Sensitivity to market risk	Sensitivity Mkt Risk	Cost of funds (i.e. Ratio of interest expense to total liabilities).	+	Bankscope / BankFocus
Liquidity	Liquidity	Ratio of net loans to deposits and short-term funding.	+	Bankscope / BankFocus
Macroeconomics				
Risk-free interest rate	Risk-Free Rate	Yield on 10-year government bond.	-	Bloomberg
Economic Environment	Economic Environment	Country stock market returns.	-	Bloomberg
Stock market volatility	Market Volatility	Historical standard deviation of daily country market returns.	+	Bloomberg

Source: Authors

Table 3: Multicollinearity diagnostics and summary statistics

In this table, we present the correlations among explanatory variables and some multicollinearity diagnostics. More precisely, in the Table 3A, we present below the diagonal the correlations among regressors for the *baseline* sample (i.e. when we consider the stressed indicators based solely on the baseline scenario outcomes). Above the diagonal, we present the correlations for the *adverse* sample. We then conduct a Variance Inflation Factors (VIFs) analysis (Liao and Valliant, 2012; Miles, 2014) whose results are reported in the Table 3B.

As stressed indicators, we have the **ΔCET1 Ratio** which is the Change in common equity tier 1 ratio caused by the simulated scenarios. **ΔTotal Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **ΔP&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **ΔNet Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **ΔAccumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** is the Ratio of liabilities to the sum of liabilities and equity. **Managmt Quality** is the Cost efficiency ratio (Ratio of operating expenses to total revenues). **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Sensitivity Mkt Risk** is the Cost of funds (i.e. Ratio of interest expense to total liabilities). **Liquidity** is the Ratio of net loans to deposits and short-term funding. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. **Market Volatility** is the Historical standard deviation of daily country market returns.

Table 3A: 2-year time horizon correlation table for the *baseline* sample (*below the diagonal*) and the *adverse* sample (*above the diagonal*).

Variables	ΔCET1 Ratio	ΔTotal Risk	ΔP&L	ΔNet Int. Inc.	ΔAccumul Inc.	Leverage	Managmt Quality	Size	Funding Stability	Asset Quality	Sensitivity Mkt Risk	Liquidity	Risk-Free Rate	Economic Environmt	Market Volatility
ΔCET1 Ratio		-0,219	-0,064	0,051	0,116	0,078	-0,436	0,077	-0,169	-0,301	0,053	0,274	0,035	0,060	-0,142
ΔTotal Risk	-0,133		0,027	0,027	0,119	0,277	0,226	0,346	-0,222	-0,457	-0,016	-0,254	-0,317	-0,091	-0,207
ΔP&L	-0,317	0,026		0,372	0,161	0,317	0,231	0,126	-0,263	0,084	0,079	0,029	0,349	0,064	0,086
ΔNet Int Inc	-0,190	-0,095	0,271		0,345	0,231	0,137	0,122	-0,133	-0,157	-0,069	-0,095	0,127	0,186	-0,192
ΔAccumul Inc	0,069	-0,158	0,110	0,174		0,358	0,059	0,167	-0,293	-0,292	0,064	0,056	-0,081	0,279	-0,327
Leverage	0,052	0,020	0,198	0,004	0,241		0,084	0,525	-0,556	-0,438	0,027	-0,196	-0,334	-0,042	-0,288
Managmt Quality	-0,493	0,176	0,250	0,128	0,022	0,084		0,043	0,050	0,104	0,155	-0,392	0,197	0,119	0,054
Size	0,236	0,065	0,043	-0,172	0,092	0,525	0,043		-0,325	-0,492	-0,268	-0,353	-0,363	-0,305	-0,289
Funding Stability	-0,026	-0,083	-0,139	-0,003	-0,200	-0,556	0,050	-0,325		0,330	-0,001	-0,114	0,212	-0,048	0,053
Asset Quality	-0,422	-0,201	0,236	0,153	-0,012	-0,438	0,104	-0,492	0,330		0,117	0,033	0,596	0,383	0,512
Sensitivity Mkt Risk	-0,298	0,091	0,034	-0,068	0,117	0,027	0,155	-0,268	-0,001	0,117		-0,062	0,214	0,265	0,219
Liquidity	0,227	-0,099	0,052	0,048	0,044	-0,196	-0,392	-0,353	-0,114	0,033	-0,062		-0,001	-0,019	-0,066
Risk-Free Rate	-0,411	0,016	0,398	0,198	0,033	-0,334	0,197	-0,363	0,212	0,596	0,214	-0,001		0,409	0,421
Economic Environment	-0,297	-0,052	0,060	0,219	-0,042	-0,042	0,119	-0,305	-0,048	0,383	0,265	-0,019	0,409		0,007
Market Volatility	-0,344	0,071	0,134	-0,012	0,015	-0,288	0,054	-0,289	0,053	0,512	0,219	-0,066	0,421	0,007	

Source: Authors' calculation.

Table 3B: Multicollinearity Diagnostics (*Variance Inflation Factors* analysis).

Variables	Variance Inflation Factors (VIFs)					
	1-year Scenario Horizon		2-year Scenario Horizon		3-year Scenario Horizon	
	<i>Baseline</i>	<i>Adverse</i>	<i>Baseline</i>	<i>Adverse</i>	<i>Baseline</i>	<i>Adverse</i>
ΔCET1 Ratio	1,61	1,84	2,01	2,03	1,92	2,01
ΔTotal Risk	1,20	1,52	1,22	1,77	1,19	1,60
ΔP&L	1,76	1,95	1,78	1,94	1,83	2,05
ΔNet Int Inc	1,24	1,33	1,29	1,48	1,27	1,56
ΔAccumul Inc	1,25	1,53	1,26	1,59	1,21	1,57
Leverage	2,51	2,49	2,44	2,43	2,42	2,50
Managmt Quality	1,62	1,56	1,61	1,62	1,54	1,56
Size	2,22	2,22	2,30	2,27	2,38	2,37
Funding Stability	1,96	1,99	1,93	1,92	1,92	1,92
Asset Quality	2,87	3,28	2,94	3,96	2,83	3,67
Sensitivity Mkt Risk	1,35	1,37	1,41	1,35	1,41	1,34
Liquidity	1,74	1,83	1,76	1,85	1,80	1,83
Risk-Free Rate	2,31	2,5	2,32	2,77	2,33	2,84
Economic Environment	1,91	2,09	1,86	2,18	1,83	2,14
Market Volatility	1,92	1,89	1,93	1,90	1,95	1,91
Mean VIFs	1,83	1,96	1,87	2,07	1,86	2,06

Source: Authors' calculation.

Table 4: Summary statistics (in bps) of indicators based on stress test outcomes.

This table reports the summary statistics (in bps) of our stressed indicators that are based on stress test outcomes.

ΔCET1 Ratio is the Change in common equity tier 1 ratio caused by the simulated scenarios. **ΔTotal Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **ΔP&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **ΔNet Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **ΔAccumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets.

Table 4A, 4B and 4C apply respectively to the 1-year, 2-year and 3-year scenario time horizon. In each table, **Scenario** refers to the stress test scenario considered. **N** is the number of observations. **Mean** is the average while **Median** is the 50th percentile. **SD** is the standard deviation. **Min** is the Minimum while **Max** is the Maximum. **p10** and **p90** correspond respectively to the 10th and 90th percentiles.

Table 4A: Summary statistics (in bps) of indicators based on the **1-year time horizon** stress test outcomes.

Time Horizon of Scenarios	Scenario	Stressed Variable	N	Mean	Median	SD	Min	Max	p10	p90
1 year	Baseline	ΔCET1 Ratio	111	14,60	11,26	54,11	-148,95	148,27	-36,12	83,94
		ΔTotal Risk	111	34,95	23,40	106,11	-447,13	645,53	-4,98	101,15
		ΔP&L	111	-2,88	-4,77	46,02	-164,44	158,59	-42,99	36,71
		ΔNet Int Inc	111	-1,06	-1,37	10,57	-23,91	58,42	-8,41	4,93
		ΔAccumul Inc.	111	-0,18	0	5,84	-39,84	18,70	-4,04	3,66
	Adverse	ΔCET1 Ratio	111	-216,87	-201,81	119,01	-657,75	0	-374,54	-72,08
		ΔTotal Risk	111	175,19	141,31	169,62	-420,20	645,53	32,40	364,51
		ΔP&L	111	-55,93	-54,76	53,45	-164,44	98,11	-122,45	1,42
		ΔNet Int Inc	111	-11,02	-9,69	16,00	-75,69	58,42	-31,40	0
		ΔAccumul Inc.	111	-15,81	-12,01	18,86	-53,44	18,70	-51,16	2,69

Source: Authors' calculation.

Table 4B: Summary statistics (in bps) of indicators based on the **2-year time horizon** stress test outcomes.

Time Horizon of Scenarios	Scenarios	Stressed Variable	N	Mean	Median	SD	Min	Max	p10	p90
2 years	Baseline	ΔCET1 Ratio	111	40,86	45,97	98,12	-343,52	282,19	-68,93	163,29
		ΔTotal Risk	111	40,52	34,40	119,73	-495,28	645,53	-2,37	146,62
		ΔP&L	111	4,52	0,84	45,79	-164,44	158,59	-35,26	48,77
		ΔNet Int Inc	111	-2,05	-1,70	12,07	-30,43	58,42	-10,28	2,80
		ΔAccumul Inc.	111	-0,16	0	6,47	-39,84	18,70	-4,30	3,84
	Adverse	ΔCET1 Ratio	111	-307,83	-277,17	142,41	-657,75	-1,55	-521,15	-145,94
		ΔTotal Risk	111	247,88	232,77	194,75	-432,39	645,53	34,44	477,75
		ΔP&L	111	-30,10	-32,56	48,13	-164,44	128,27	-83,51	14,74
		ΔNet Int Inc	111	-15,79	-13,84	18,43	-86,80	58,42	-36,12	0,00
		ΔAccumul Inc.	111	-14,63	-9,83	18,87	-53,44	18,70	-49,33	6,61

Source: Authors' calculation.

Table 4C: Summary statistics (in bps) of indicators based on the **3-year time horizon** stress test outcomes.

Time Horizon of Scenarios	Scenarios	Stressed Variable	N	Mean	Median	SD	Min	Max	p10	p90
3 years	Baseline	ΔCET1 Ratio	111	56,68	67,09	149,26	-578,93	352,53	-101,61	230,93
		ΔTotal Risk	111	49,58	47,30	135,37	-495,27	645,53	-6,17	173,58
		ΔP&L	111	5,07	1,59	46,76	-164,44	158,59	-35,20	52,83
		ΔNet Int Inc	111	-3,64	-2,74	13,84	-37,69	58,42	-15,72	1,48
		ΔAccumul Inc.	111	-0,31	0	6,79	-39,84	18,70	-5,21	3,84
	Adverse	ΔCET1 Ratio	111	-366,02	-339,04	164,22	-657,75	-0,96	-635,66	-179,51
		ΔTotal Risk	111	264,27	262,89	208,69	-289,74	645,53	10,65	530,31
		ΔP&L	111	-27,08	-28,89	49,38	-164,44	127,11	-78,88	18,40
		ΔNet Int Inc	111	-20,28	-18,35	20,44	-91,99	58,42	-48,34	-1,85
		ΔAccumul Inc.	111	-15,75	-11,30	19,57	-53,44	18,70	-51,16	4,43

Source: Authors' calculation.

Table 5: Summary statistics of control variables.

This table presents the summary statistics of our model control variables, in the time period from 2013 to 2017. **Leverage** is the Ratio of liabilities to the sum of liabilities and equity. **Managmt Quality** is the Cost efficiency ratio (Ratio of operating expenses to total revenues). **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Sensitivity Mkt Risk** is the Cost of funds (i.e. Ratio of interest expense to total liabilities). **Liquidity** is the Ratio of net loans to deposits and short-term funding. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. **Market Volatility** is the Historical standard deviation of daily country market returns.

Considering each row, **N** is the number of observations. **Mean** is the average while **Median** is the 50th percentile. **SD** is the standard deviation. **Min** is the Minimum. **p10** and **p90** correspond respectively to the 10th and 90th percentiles. **Max** is the Maximum.

Control Variable	N	Mean	Median	SD	Min	p10	p90	Max
Leverage	110	0,935	0,937	0,016	0,882	0,914	0,953	0,962
Managmt Quality	110	0,630	0,622	0,166	-0,033	0,472	0,797	1,275
Size	110	26,746	26,585	1,030	24,224	25,448	28,144	28,546
Funding Stability	110	0,472	0,461	0,136	0,232	0,286	0,654	0,844
Asset Quality	110	0,050	0,026	0,055	0,000	0,007	0,142	0,196
Sensitivity Mkt Risk	110	0,015	0,012	0,012	0,003	0,005	0,026	0,057
Liquidity	110	0,898	0,878	0,244	0,382	0,604	1,214	1,934
Risk-Free Rate	110	0,021	0,017	0,016	0,004	0,006	0,046	0,062
Economic Environment	110	0,151	0,156	0,095	-0,072	0,061	0,280	0,336
Market Volatility	110	0,010	0,009	0,003	0,005	0,006	0,015	0,019

Source: Authors' calculation.

Table 6: Summary statistics of the market reaction (CAARs) over all the CDS maturities.

This Table presents the estimates of the market response to the disclosure of the 2014, 2016 and 2018 EU-wide stress test results. We have eight different rows corresponding to the eight different estimates of the market response (according to the eight different CDS maturities). Considering each row, the first column corresponds to the CDS Maturity used to estimate the market response while the second column reports the Number of banks in the sample used to estimate the market response. This latter (CAARs) which is the average of individual banks' reactions (CARs) is reported in the third column whereas the fourth one provides an indication of the dispersion of these individual reactions around the CAARs (standard deviation of CARs). The next column shows the minimum individual reaction (Min CARs). p10, p50 and p90 correspond respectively to the 10th, 50th and 90th percentiles of CARs. The next column shows the maximum individual reaction (Max CARs). To establish the statistical validity of CAARs, we use three parametric tests and two non-parametric tests. The columns (1), (2) and (3) report the results of the parametric tests (respectively the Patell test, the Boehmer-Musumeci-Poulsen test and the Kolar-Pynnonen test) while the columns (4), (5) and (6) provide the results of the non-parametric tests (respectively the Wilcoxon signed-ranks test, the Generalized Sign test and the Generalized Rank test). The Generalized Rank test, to our best knowledge, is the most reliable test available as it dominates all parametric tests as well as the Corrado (1989) and the Corrado and Zivney (1992) rank tests (Kolari and Pynnonen, 2011). *, **, ***, +++ indicate statistical significance respectively at 10%, 5%, 1% and 0,1% levels.

Maturity	N	CAARs	SD (CARs)	Min (CARs)	p10 (CARs)	p50 (CARs)	p90 (CARs)	Max (CARs)	Patell p-value (1)	BMP p-value (2)	KP p-value (3)	Wilcoxon p-value (4)	GenSign p-value (5)	GRANK p-value (6)
6-Month	112	-0,997%	9,435%	-26,460%	-10,176%	-1,779%	8,055%	31,951%	***	+++		***	***	**
1-Year	110	-1,218%	8,772%	-25,434%	-9,928%	-1,780%	7,382%	30,161%	+++	+++		***	+++	**
2-Year	110	-1,002%	7,906%	-24,499%	-9,390%	-1,869%	8,078%	26,385%	+++	+++		**	**	**
3-Year	113	-1,328%	7,312%	-24,476%	-9,060%	-2,072%	6,441%	20,653%	+++	+++		**	***	**
4-Year	111	-1,489%	6,076%	-21,586%	-8,252%	-1,306%	5,873%	13,742%	+++	+++		**	***	*
5-Year	113	-1,804%	6,129%	-24,092%	-8,155%	-1,288%	4,934%	13,230%	+++	+++		**	***	*
7-Year	111	-1,013%	6,284%	-30,193%	-7,359%	-0,898%	3,976%	21,834%	+++	+++		**		*
10-Year	113	-2,108%	6,414%	-28,084%	-7,948%	-1,535%	3,852%	18,716%	+++	+++	**	+++	+++	+++

Source: Authors' calculation.

Table 7: Determinants of the market reaction to the disclosure of 1-year time horizon stress test results.

Market reaction		CAR [-1 ; 2]															
Horizons		1-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		1.432 (2.570)	2.238 (2.618)	1.773 (2.683)	1.347 (2.143)	0.279 (1.811)	-0.426 (1.424)	-0.947 (1.423)	-0.661 (1.397)	2.233 (2.062)	1.970 (2.162)	2.155 (2.002)	1.633 (1.879)	-0.389 (1.373)	-1.075 (1.236)	0.643 (1.220)	-0.108 (1.472)
ΔTotal Risk		4.020*** (1.028)	4.017*** (1.052)	3.704*** (1.146)	3.112*** (1.057)	3.131*** (0.953)	1.991** (0.976)	2.390** (0.962)	2.403** (1.070)	1.090 (1.053)	0.820 (1.093)	0.504 (0.987)	0.337 (0.912)	-0.285 (0.797)	-0.729 (0.897)	-0.341 (0.678)	-0.444 (0.711)
ΔP&L		-11.72*** (4.248)	-10.67** (4.195)	-9.280** (4.225)	-6.297 (4.099)	0.591 (2.671)	3.273 (2.739)	-0.585 (3.809)	0.398 (4.237)	-5.594 (3.475)	-5.722 (3.464)	-5.427 (3.453)	-4.211 (3.053)	-0.848 (2.796)	0.821 (2.908)	-1.245 (3.136)	0.112 (2.940)
ΔNet Int Inc		-16.00** (6.491)	-22.60*** (6.626)	-24.09*** (5.651)	-24.05*** (5.519)	-18.41*** (5.855)	-12.45 (8.630)	-8.592 (5.838)	-14.05** (5.304)	-9.282 (9.292)	-16.99* (9.366)	-18.48** (8.571)	-18.17** (8.410)	-12.55* (7.286)	-10.82 (7.888)	0.340 (7.689)	-6.051 (7.438)
ΔAccumul Inc		13.67 (12.92)	13.52 (13.58)	16.33 (14.41)	20.46 (14.55)	9.172 (10.25)	8.968 (9.979)	17.79 (14.66)	17.16 (14.36)	-1.295 (10.78)	1.647 (10.57)	4.943 (9.783)	5.624 (8.892)	-2.889 (5.171)	-4.132 (4.268)	0.638 (7.259)	0.890 (7.763)
Control Variables																	
Leverage		2.235 (1.453)	3.146** (1.452)	2.976* (1.587)	1.741 (1.275)	2.050 (1.388)	0.979 (1.300)	1.786 (1.266)	1.557 (1.161)	2.629 (2.007)	3.883** (1.738)	3.587* (1.796)	2.801** (1.388)	2.377* (1.348)	1.615 (1.303)	1.785 (1.497)	1.910 (1.246)
Managmt Quality		0.00684 (0.196)	0.00485 (0.197)	0.0159 (0.201)	0.0384 (0.166)	-0.0259 (0.134)	-0.0536 (0.139)	-0.118 (0.103)	-0.106 (0.122)	-0.107 (0.184)	-0.127 (0.209)	-0.0874 (0.209)	-0.0522 (0.202)	-0.101 (0.133)	-0.108 (0.140)	-0.135 (0.113)	-0.158 (0.140)
Size		-0.0903 (0.106)	-0.00651 (0.0966)	0.0400 (0.118)	0.0589 (0.114)	-0.0485 (0.0489)	-0.132** (0.0561)	-0.0575 (0.100)	-0.0353 (0.114)	-0.110 (0.152)	-0.0436 (0.133)	-0.0255 (0.136)	0.000361 (0.120)	-0.0433 (0.0661)	-0.114 (0.0682)	-0.0902 (0.0885)	-0.0607 (0.103)
Funding Stability		-0.563 (0.398)	-0.365 (0.381)	-0.211 (0.361)	-0.201 (0.337)	0.196 (0.217)	0.0639 (0.207)	-0.0755 (0.299)	-0.157 (0.316)	-0.448 (0.487)	-0.364 (0.449)	-0.367 (0.424)	-0.344 (0.381)	-0.0140 (0.240)	-0.146 (0.213)	-0.227 (0.349)	-0.347 (0.330)
Asset Quality		-0.867 (0.554)	-0.588 (0.559)	-0.674 (0.522)	-0.634 (0.521)	-0.851 (0.516)	-0.977* (0.567)	-1.015* (0.605)	-0.971* (0.502)	-0.984 (0.777)	-0.809 (0.759)	-0.749 (0.741)	-0.678 (0.702)	-1.125** (0.560)	-1.261** (0.539)	-0.809 (0.741)	-1.030* (0.576)
Sensitivity Mkt Risk		-4.984 (5.923)	-2.783 (4.451)	-2.570 (3.828)	-2.993 (3.637)	-1.561 (2.517)	-2.320 (2.399)	-2.558 (3.659)	-3.443 (3.456)	-4.920 (6.502)	-2.182 (4.976)	-2.217 (4.310)	-2.238 (4.050)	-0.218 (2.354)	-0.785 (2.063)	-2.143 (3.780)	-2.694 (3.692)
Liquidity		-0.0977 (0.0773)	-0.0484 (0.0686)	-0.0476 (0.0755)	-0.0439 (0.0651)	-0.0688 (0.0493)	-0.101* (0.0516)	-0.0841 (0.0512)	-0.0825 (0.0550)	-0.0961 (0.0984)	-0.0415 (0.0853)	-0.0369 (0.0919)	-0.0322 (0.0826)	-0.0243 (0.0672)	-0.0535 (0.0611)	-0.0625 (0.0623)	-0.0530 (0.0635)
Risk-Free Rate		3.694 (2.455)	2.165 (1.869)	1.199 (1.583)	-0.123 (1.443)	-1.454 (1.104)	-2.172** (0.908)	-0.934 (1.339)	-1.137 (1.253)	2.490 (2.622)	1.350 (2.228)	0.449 (1.870)	-0.424 (1.712)	-1.004 (1.137)	-1.385 (0.991)	-1.123 (1.524)	-1.084 (1.410)
Economic Environment		-0.352**	-0.376**	-0.266*	-0.139	0.0717	0.198	0.141	0.0446	-0.222	-0.276**	-0.220	-0.140	0.0974	0.195	0.142	0.0533

	(0.146)	(0.148)	(0.142)	(0.134)	(0.113)	(0.134)	(0.114)	(0.119)	(0.148)	(0.137)	(0.140)	(0.120)	(0.119)	(0.121)	(0.0852)	(0.0918)
Market Volatility	-13.03** (5.840)	-11.15* (5.840)	-6.970 (6.389)	-3.207 (5.928)	-1.042 (3.326)	-2.323 (3.231)	0.175 (4.117)	0.0158 (4.796)	-8.032 (7.760)	-7.122 (7.663)	-4.322 (7.528)	-1.596 (6.969)	1.129 (4.678)	-1.260 (3.948)	1.723 (3.951)	1.845 (4.877)
Constant	0.874 (2.998)	-2.383 (2.880)	-3.584 (3.626)	-2.984 (3.172)	-0.556 (1.822)	2.825* (1.598)	0.128 (2.712)	-0.200 (2.975)	1.027 (4.763)	-2.040 (4.223)	-2.279 (4.668)	-2.304 (3.765)	-0.951 (2.310)	1.768 (2.032)	1.061 (2.695)	0.224 (3.001)
Joint Significancy of Stressed Indicators																
Wald Test Statistic	7,09***	7,22***	7,14***	6,79***	4,73***	2,13*	2,18*	2,76**	2,2*	3,25**	2,66**	2,28*	1,34	0,76	0,2	0,36
Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.417	0.415	0.393	0.389	0.560	0.534	0.361	0.392	0.245	0.261	0.279	0.290	0.481	0.522	0.259	0.304
Adjusted R-squared	0.322	0.317	0.292	0.291	0.488	0.459	0.256	0.294	0.122	0.137	0.158	0.175	0.395	0.445	0.137	0.191
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.000	0.000	0	0	0.000	0.000	0.000	0.000	0.022	0.000	0.002	0.000	0	0	0.000	0.000
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Notes: This table reports the estimates from two distinct series of panel regressions. In each series, we regress the market reaction (to the divulgation of the 2014, 2016 and 2018 EU-wide stress test results) over a set of five stressed indicators and several control variables. These two series of regressions differ only in the stress test outcomes used to compute the five stressed indicators. For the series of regressions of the *baseline* scenario (*adverse* scenario), the stressed indicators are based solely on the *baseline* scenario outcomes (*adverse* scenario outcomes) estimated over a 1-year time horizon. Then, in each series, we have eight columns which present the estimates of eight distinct regressions that differ from each other only in the maturity used to calculate the market response (i.e. the dependent variable), following Agbodji *et al.* (2021) suggestions. We obtain the market reaction (at the level of all CDS maturities) by estimating the Cumulative Abnormal CDS spread Returns (CAR). We estimate it using an event study methodology over a four-day event window ((-1,+2)), the event being the stress test results' disclosure.

As stressed indicators, we have the **ΔCET1 Ratio** which is the Change in common equity tier 1 ratio caused by the simulated scenarios. **ΔTotal Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **ΔP&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **ΔNet Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **ΔAccumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** is the Ratio of liabilities to the sum of liabilities and equity. **Managmt Quality** is the Cost efficiency ratio (Ratio of operating expenses to total revenues). **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Sensitivity Mkt Risk** is the Cost of funds (i.e. Ratio of interest expense to total liabilities). **Liquidity** is the Ratio of net loans to deposits and short-term funding. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. **Market Volatility** is the Historical standard deviation of daily country market returns. Following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics (that exist and have important explanatory power for the market reactions) and to improve the efficiency of our estimates. Robust standard errors (in parenthesis) are clustered by bank. *, **, *** indicate respectively significance at 10%, 5% and 1% levels.

Table 8: Determinants of the market reaction to the disclosure of 2-year time horizon stress test results.

Market reaction		CAR [-1 ; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		1.281 (1.693)	1.510 (1.653)	0.902 (1.604)	0.697 (1.355)	-0.108 (1.026)	-0.0651 (0.924)	-0.359 (1.083)	-0.179 (1.028)	0.554 (1.748)	0.301 (1.797)	0.366 (1.744)	0.266 (1.618)	-1.392 (1.044)	-1.521* (0.882)	0.125 (1.051)	-0.183 (1.162)
ΔTotal Risk		3.416*** (0.907)	3.500*** (0.888)	3.546*** (0.978)	3.111*** (0.879)	2.354*** (0.650)	1.500** (0.742)	2.162*** (0.801)	2.216** (0.842)	0.199 (0.934)	-0.0430 (1.046)	0.226 (0.957)	0.241 (0.853)	-0.407 (0.521)	-0.520 (0.502)	-0.268 (0.648)	-0.231 (0.689)
ΔP&L		-11.20*** (4.021)	-9.953** (4.025)	-8.743** (4.172)	-5.254 (3.665)	-0.878 (2.518)	0.678 (2.650)	-0.267 (3.332)	0.976 (3.734)	-8.699** (4.121)	-6.574 (4.042)	-5.379 (4.253)	-3.297 (3.604)	0.506 (2.445)	1.630 (2.246)	-0.161 (3.625)	1.961 (3.359)
ΔNet Int Inc		-16.51** (6.741)	-22.37*** (6.467)	-23.75*** (6.409)	-23.27*** (5.690)	-20.60*** (5.721)	-14.70* (7.998)	-10.76* (5.408)	-14.18*** (5.031)	0.374 (10.16)	-6.349 (10.61)	-10.06 (9.108)	-12.16 (8.265)	-12.91** (6.369)	-13.70** (5.980)	-0.528 (8.085)	-5.988 (6.139)
ΔAccumul Inc		25.49* (14.61)	26.20* (13.95)	28.57** (13.44)	30.63** (12.77)	18.72* (10.20)	16.29 (10.62)	26.91** (12.76)	25.67** (11.81)	-3.960 (11.22)	-0.626 (11.14)	3.317 (10.95)	4.052 (9.747)	-2.124 (5.744)	-2.384 (4.364)	0.957 (7.184)	1.988 (7.454)
Control Variables																	
Leverage		1.833 (1.615)	2.660* (1.586)	2.428 (1.720)	1.254 (1.319)	1.576 (1.400)	0.698 (1.293)	1.391 (1.259)	0.950 (1.194)	2.302 (1.888)	3.265* (1.745)	2.960 (2.089)	2.525* (1.505)	2.721* (1.501)	2.226* (1.246)	1.758 (1.691)	1.788 (1.182)
Managmt Quality		0.0172 (0.189)	0.00323 (0.187)	0.0102 (0.190)	0.0311 (0.158)	-0.0228 (0.115)	-0.0168 (0.127)	-0.101 (0.106)	-0.0905 (0.115)	-0.0910 (0.165)	-0.126 (0.174)	-0.109 (0.177)	-0.0683 (0.170)	-0.131 (0.115)	-0.123 (0.124)	-0.164 (0.113)	-0.176 (0.124)
Size		-0.00228 (0.120)	0.0843 (0.102)	0.142 (0.100)	0.155* (0.0905)	0.0396 (0.0455)	-0.0643 (0.0615)	0.0289 (0.0722)	0.0499 (0.0848)	-0.171 (0.183)	-0.107 (0.165)	-0.0442 (0.154)	0.00295 (0.130)	-0.0194 (0.0594)	-0.0789 (0.0659)	-0.0981 (0.0953)	-0.0506 (0.105)
Funding Stability		-0.533 (0.392)	-0.323 (0.362)	-0.122 (0.328)	-0.107 (0.308)	0.173 (0.214)	0.000701 (0.209)	-0.0460 (0.290)	-0.101 (0.297)	-0.703 (0.538)	-0.541 (0.518)	-0.417 (0.507)	-0.317 (0.444)	0.0719 (0.255)	-0.0400 (0.231)	-0.237 (0.396)	-0.259 (0.416)
Asset Quality		-0.888 (0.572)	-0.648 (0.549)	-0.680 (0.501)	-0.657 (0.481)	-0.889* (0.454)	-0.981* (0.503)	-1.130* (0.601)	-0.998** (0.447)	-1.255* (0.682)	-1.049 (0.646)	-0.920 (0.609)	-0.804 (0.584)	-1.256** (0.480)	-1.295*** (0.473)	-0.925 (0.684)	-0.997* (0.499)
Sensitivity Mkt Risk		-6.081 (5.833)	-3.583 (4.126)	-3.054 (3.661)	-3.223 (3.477)	-0.878 (2.654)	-1.868 (2.787)	-2.818 (3.590)	-3.455 (3.478)	-5.068 (6.214)	-2.324 (4.968)	-2.263 (4.536)	-2.128 (4.145)	0.0530 (2.278)	-0.548 (1.937)	-1.990 (3.835)	-2.631 (3.812)
Liquidity		-0.0673 (0.0792)	-0.0200 (0.0652)	-0.0222 (0.0665)	-0.0162 (0.0582)	-0.0409 (0.0474)	-0.0764 (0.0507)	-0.0621 (0.0455)	-0.0577 (0.0478)	-0.109 (0.104)	-0.0546 (0.0957)	-0.0470 (0.0990)	-0.0351 (0.0838)	-0.0182 (0.0634)	-0.0435 (0.0564)	-0.0660 (0.0648)	-0.0537 (0.0656)
Risk-Free Rate		3.170 (2.540)	1.533 (1.849)	0.498 (1.554)	-0.910 (1.386)	-2.082* (1.186)	-2.357** (1.013)	-1.553 (1.318)	-1.780 (1.274)	3.535 (2.670)	1.723 (2.242)	0.664 (1.967)	-0.545 (1.688)	-0.936 (1.028)	-1.323* (0.785)	-1.211 (1.244)	-1.573 (1.304)
Economic Environment		-0.276* (1.021)	-0.295* (1.025)	-0.195 (1.021)	-0.0702 (1.021)	0.0910 (1.021)	0.180 (1.021)	0.186* (1.021)	0.0936 (1.021)	-0.228 (1.021)	-0.233 (1.021)	-0.173 (1.021)	-0.0828 (1.021)	0.147 (1.021)	0.213** (1.021)	0.163** (1.021)	0.0921 (1.021)

	(0.156)	(0.152)	(0.138)	(0.121)	(0.104)	(0.128)	(0.106)	(0.104)	(0.153)	(0.149)	(0.145)	(0.117)	(0.0908)	(0.0862)	(0.0810)	(0.0772)
Market Volatility	-9.949 (5.990)	-8.020 (6.049)	-4.015 (5.939)	-0.361 (5.522)	0.650 (3.110)	-1.906 (2.971)	2.358 (3.728)	2.161 (4.370)	-9.343 (8.890)	-7.810 (8.791)	-4.044 (8.400)	-0.628 (7.419)	2.434 (4.062)	-0.457 (3.062)	1.773 (4.184)	2.691 (4.965)
Constant	-1.160 (3.406)	-4.414 (3.089)	-5.865* (3.391)	-5.171* (2.785)	-2.500 (1.920)	1.245 (1.869)	-1.866 (2.270)	-1.986 (2.484)	3.085 (5.666)	0.334 (5.094)	-1.170 (5.668)	-2.142 (4.397)	-1.985 (2.471)	0.171 (2.104)	1.321 (3.412)	0.0311 (3.235)
Joint Significance of Stressed Indicators																
Wald Test Statistic	5,66***	6,89***	6,73***	7,53***	8,09***	1,89	2,78**	4,41***	1,09	0,93	0,93	0,97	1,91	1,77	0,06	0,23
Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.402	0.412	0.408	0.411	0.588	0.552	0.387	0.421	0.241	0.218	0.229	0.252	0.518	0.572	0.254	0.306
Adjusted R-squared	0.304	0.314	0.310	0.316	0.520	0.479	0.286	0.327	0.117	0.0881	0.100	0.131	0.439	0.503	0.131	0.194
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.076	0.080	0.008	0.000	0	0	0.000	0.000
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Notes: This table reports the estimates from two distinct series of panel regressions. In each serie, we regress the market reaction (to the divulgation of the 2014, 2016 and 2018 EU-wide stress test results) over a set of five stressed indicators and several control variables. These two series of regressions differ only in the stress test outcomes used to compute the five stressed indicators. For the series of regressions of the *baseline* scenario (*adverse* scenario), the stressed indicators are based solely on the *baseline* scenario outcomes (*adverse* scenario outcomes) estimated over a 2-year time horizon. Then, in each series, we have eight columns which present the estimates of eight distinct regressions that differ from each other only in the maturity used to calculate the market response (i.e. the dependent variable), following Agbodji *et al.* (2021) suggestions. We obtain the market reaction (at the level of all CDS maturities) by estimating the Cumulative Abnormal CDS spread Returns (CAR). We estimate it using an event study methodology over a four-day event window ((-1,+2)), the event being the stress test results' disclosure.

As stressed indicators, we have the **ΔCET1 Ratio** which is the Change in common equity tier 1 ratio caused by the simulated scenarios. **ΔTotal Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **ΔP&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **ΔNet Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **ΔAccumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** is the Ratio of liabilities to the sum of liabilities and equity. **Managmt Quality** is the Cost efficiency ratio (Ratio of operating expenses to total revenues). **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Sensitivity Mkt Risk** is the Cost of funds (i.e. Ratio of interest expense to total liabilities). **Liquidity** is the Ratio of net loans to deposits and short-term funding. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. **Market Volatility** is the Historical standard deviation of daily country market returns. Following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics (that exist and have important explanatory power for the market reactions) and to improve the efficiency of our estimates. Robust standard errors (in parenthesis) are clustered by bank. *, **, *** indicate respectively significance at 10%, 5% and 1% levels.

Table 9: Determinants of the market reaction to the disclosure of 3-year time horizon stress test results.

Market reaction		CAR [-1 ; 2]															
Horizons		3-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		1.012 (1.063)	1.127 (1.032)	0.754 (0.996)	0.729 (0.894)	0.187 (0.725)	0.270 (0.686)	0.317 (0.747)	0.344 (0.762)	0.0208 (1.141)	-0.0939 (1.151)	-0.381 (1.123)	-0.375 (1.062)	-1.206 (0.735)	-1.223* (0.675)	-0.475 (0.872)	-0.471 (0.827)
ΔTotal Risk		2.789*** (0.853)	2.963*** (0.850)	2.927*** (0.917)	2.564*** (0.837)	1.769*** (0.657)	1.038 (0.679)	1.489* (0.766)	1.650** (0.790)	-0.506 (0.725)	-0.666 (0.817)	-0.397 (0.767)	-0.291 (0.632)	-0.193 (0.414)	-0.0693 (0.363)	-0.223 (0.495)	-0.123 (0.546)
ΔP&L		-10.11** (4.136)	-8.874** (4.156)	-8.343* (4.173)	-5.399 (3.752)	-1.036 (2.675)	0.136 (2.753)	-1.499 (3.495)	0.0983 (3.716)	-9.325** (4.579)	-7.537 (4.633)	-6.204 (4.535)	-4.412 (3.862)	-0.363 (2.719)	0.653 (2.541)	-3.090 (3.904)	-0.630 (3.650)
ΔNet Int Inc		-11.71** (5.528)	-17.45*** (5.861)	-16.10** (6.026)	-14.11** (6.525)	-14.30** (5.438)	-10.36 (6.903)	-5.282 (5.556)	-9.522* (5.093)	6.926 (11.38)	0.337 (11.91)	-2.796 (10.71)	-3.982 (9.927)	-8.393 (7.608)	-10.15 (6.701)	5.422 (8.494)	-0.940 (7.440)
ΔAccumul Inc		22.81 (14.47)	23.71* (13.61)	27.19* (13.79)	28.19** (13.05)	17.92* (9.822)	15.10 (9.631)	24.49* (13.50)	23.42* (12.49)	-6.341 (10.68)	-2.151 (10.69)	2.076 (10.85)	2.856 (9.615)	-2.308 (6.141)	-2.060 (4.471)	0.351 (7.143)	2.382 (7.510)
Control Variables																	
Leverage		1.807 (1.718)	2.700 (1.670)	2.034 (1.929)	1.185 (1.430)	1.240 (1.470)	0.677 (1.370)	1.359 (1.345)	0.975 (1.238)	1.808 (2.007)	2.899 (1.777)	2.607 (2.176)	2.217 (1.584)	2.749 (1.784)	2.334* (1.353)	1.748 (1.744)	1.905 (1.226)
Managmt Quality		-0.00325 (0.162)	-0.0151 (0.160)	0.00883 (0.162)	0.0475 (0.143)	-0.00294 (0.110)	0.00663 (0.120)	-0.0685 (0.104)	-0.0630 (0.110)	-0.0812 (0.166)	-0.105 (0.171)	-0.107 (0.166)	-0.0623 (0.157)	-0.0893 (0.114)	-0.0777 (0.119)	-0.145 (0.108)	-0.152 (0.115)
Size		-0.0187 (0.122)	0.0622 (0.104)	0.117 (0.104)	0.127 (0.0956)	0.00734 (0.0461)	-0.0943 (0.0592)	0.000117 (0.0803)	0.0215 (0.0911)	-0.175 (0.178)	-0.131 (0.162)	-0.0588 (0.150)	-0.0153 (0.124)	-0.0344 (0.0581)	-0.0860 (0.0545)	-0.0698 (0.0906)	-0.0451 (0.0970)
Funding Stability		-0.545 (0.378)	-0.326 (0.353)	-0.159 (0.321)	-0.134 (0.301)	0.115 (0.228)	-0.0521 (0.215)	-0.147 (0.294)	-0.177 (0.297)	-0.717 (0.524)	-0.574 (0.516)	-0.442 (0.510)	-0.339 (0.446)	0.0910 (0.270)	-0.0111 (0.239)	-0.217 (0.412)	-0.280 (0.414)
Asset Quality		-0.937 (0.608)	-0.699 (0.578)	-0.706 (0.522)	-0.687 (0.502)	-0.939** (0.465)	-1.028** (0.506)	-1.155* (0.617)	-1.043** (0.454)	-1.230* (0.697)	-1.021 (0.650)	-0.920 (0.612)	-0.805 (0.596)	-1.121** (0.520)	-1.129** (0.527)	-0.792 (0.686)	-0.931* (0.535)
Sensitivity Mkt Risk		-5.643 (5.816)	-3.036 (3.975)	-2.964 (3.531)	-3.270 (3.416)	-1.103 (2.552)	-2.073 (2.556)	-3.192 (3.492)	-3.677 (3.399)	-5.267 (5.991)	-2.648 (4.928)	-2.558 (4.596)	-2.427 (4.151)	-0.429 (2.270)	-0.998 (1.940)	-2.196 (3.371)	-2.952 (3.629)
Liquidity		-0.0463 (0.0797)	0.00311 (0.0651)	-0.000749 (0.0664)	0.00365 (0.0583)	-0.0302 (0.0505)	-0.0697 (0.0531)	-0.0493 (0.0495)	-0.0466 (0.0496)	-0.0977 (0.0986)	-0.0471 (0.0903)	-0.0379 (0.0946)	-0.0296 (0.0798)	-0.0251 (0.0587)	-0.0507 (0.0516)	-0.0588 (0.0596)	-0.0530 (0.0618)
Risk-Free Rate		2.945 (2.587)	1.311 (1.839)	0.466 (1.558)	-0.750 (1.420)	-1.900 (1.198)	-2.071** (1.018)	-1.128 (1.358)	-1.436 (1.323)	3.558 (2.503)	1.843 (2.139)	0.877 (1.938)	-0.300 (1.652)	-1.023 (1.075)	-1.412 (0.867)	-0.574 (1.153)	-1.080 (1.317)
Economic Environment		-0.214 (0.151)	-0.235 (0.149)	-0.133 (0.132)	-0.0230 (0.118)	0.128 (0.103)	0.194 (0.120)	0.191* (0.110)	0.103 (0.109)	-0.173 (0.147)	-0.191 (0.142)	-0.115 (0.130)	-0.0333 (0.106)	0.156* (0.0833)	0.206** (0.0791)	0.150* (0.0805)	0.0698 (0.0736)

Market Volatility	-8.966 (5.875)	-7.266 (5.909)	-3.385 (5.857)	0.280 (5.562)	0.636 (3.068)	-2.130 (2.844)	2.089 (3.798)	1.883 (4.403)	-8.146 (8.265)	-7.307 (8.012)	-2.843 (7.547)	0.549 (6.691)	2.049 (3.350)	-0.989 (2.446)	2.884 (3.985)	3.052 (4.476)
Constant	-0.718 (3.461)	-3.888 (3.030)	-4.866 (3.415)	-4.413 (2.833)	-1.324 (1.975)	2.070 (1.973)	-1.051 (2.526)	-1.245 (2.604)	3.635 (5.475)	1.303 (4.999)	-0.469 (5.635)	-1.385 (4.246)	-1.642 (2.903)	0.220 (2.097)	0.500 (3.409)	-0.254 (3.096)
Joint Significance of Stressed Indicators																
Wald Test Statistic	3,72***	4,23***	3,51***	3,08**	3,59***	1,35	1,46	2,4**	0,91	0,71	0,58	0,49	1,17	1,46	0,19	0,11
Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.360	0.372	0.364	0.357	0.545	0.531	0.348	0.391	0.239	0.210	0.205	0.219	0.496	0.551	0.273	0.300
Adjusted R-squared	0.255	0.267	0.258	0.253	0.470	0.455	0.240	0.293	0.115	0.0781	0.0726	0.0927	0.413	0.479	0.154	0.187
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.008	0.000	0	0.000	0.000
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Notes: This table reports the estimates from two distinct series of panel regressions. In each series, we regress the market reaction (to the divulgation of the 2014, 2016 and 2018 EU-wide stress test results) over a set of five stressed indicators and several control variables. These two series of regressions differ only in the stress test outcomes used to compute the five stressed indicators. For the series of regressions of the *baseline* scenario (*adverse* scenario), the stressed indicators are based solely on the *baseline* scenario outcomes (*adverse* scenario outcomes) estimated over a 3-year time horizon. Then, in each series, we have eight columns which present the estimates of eight distinct regressions that differ from each other only in the maturity used to calculate the market response (i.e. the dependent variable), following Agbodji *et al.* (2021) suggestions. We obtain the market reaction (at the level of all CDS maturities) by estimating the Cumulative Abnormal CDS spread Returns (CAR). We estimate it using an event study methodology over a four-day event window ((-1,+2)), the event being the stress test results' disclosure.

As stressed indicators, we have the **ΔCET1 Ratio** which is the Change in common equity tier 1 ratio caused by the simulated scenarios. **ΔTotal Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **ΔP&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **ΔNet Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **ΔAccumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** is the Ratio of liabilities to the sum of liabilities and equity. **Managmt Quality** is the Cost efficiency ratio (Ratio of operating expenses to total revenues). **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Sensitivity Mkt Risk** is the Cost of funds (i.e. Ratio of interest expense to total liabilities). **Liquidity** is the Ratio of net loans to deposits and short-term funding. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. **Market Volatility** is the Historical standard deviation of daily country market returns. Following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics (that exist and have important explanatory power for the market reactions) and to improve the efficiency of our estimates. Robust standard errors (in parenthesis) are clustered by bank. *, **, *** indicate respectively significance at 10%, 5% and 1% levels.

Appendix

Appendix A: Participating banks and Countries included in our final sample.

Considering a given stress test column, × indicates tested banks with available data on tradable credit default swap (so banks with available CDS spread returns). Hence, it indicates banks that we consider to examine the impacts of the test.

Table A.1: List of participating banks included in our final sample, test by test

Bank Name	Bank Country	2014 EBA test	2016 EBA test	2018 EBA test
ABN AMRO Bank NV	NETHERLANDS	×		×
Allied Irish Banks plc	IRELAND	×	×	×
Alpha Bank AE	GREECE	×		
Banca Monte dei Paschi di Siena SpA	ITALY	×	×	
Banca Popolare di Milano SCaRL	ITALY	×		
Banco Bilbao Vizcaya Argentaria SA	SPAIN	×	×	×
Banco BPI SA	PORTUGAL	×		
Banco BPM SpA	ITALY			×
Banco Comercial Português, SA-Millennium bcp	PORTUGAL	×		
Banco de Sabadell SA	SPAIN	×	×	×
Banco Popolare - Società Cooperativa-Banco Popolare	ITALY	×	×	
Banco Popular Espanol SA	SPAIN	×	×	
Banco Santander SA	SPAIN	×	×	×
BAWAG PSK Bank fuer Arbeit und Wirtschaft und OP AG	AUSTRIA	×		
Bank of Ireland	IRELAND	×	×	×
Bankinter SA	SPAIN	×		
Barclays Bank Plc	BRITAIN	×	×	×
Bayerische Landesbank	GERMANY	×	×	
BNP Paribas	FRANCE	×	×	×
Caixa Geral de Depositos	PORTUGAL	×		
CaixaBank SA	SPAIN			×
Commerzbank AG	GERMANY	×	×	
Cooperatieve Rabobank U.A.	NETHERLANDS		×	×
Crédit Agricole S.A.	FRANCE	×	×	×
Danske Bank A/S	DENMARK	×	×	×
Deutsche Bank AG	GERMANY	×	×	
DNB Bank ASA	NORWAY	×	×	×
DZ Bank AG-Deutsche Zentral-Genossenschaftsbank	GERMANY	×		×
Erste Group Bank AG	AUSTRIA	×	×	×
Eurobank Ergasias SA	GREECE	×		
HSBC Bank plc	BRITAIN	×	×	×
HSH Nordbank AG	GERMANY	×		
IKB Deutsche Industriebank AG	GERMANY	×		
ING Bank NV	NETHERLANDS	×	×	×
Intesa Sanpaolo	ITALY	×	×	×
KBC Groep NV/ KBC Groupe SA-KBC Group	BELGIUM	×	×	×
Landesbank Baden-Wuerttemberg	GERMANY	×	×	
Landesbank Hessen-Thuringen Girozentrale - HELABA	GERMANY	×	×	
Lloyds Bank Plc	BRITAIN	×	×	×

Mediobanca Banca di Credito Finanziario SpA	ITALY	x		
National Bank of Greece SA	GREECE	x		
Norddeutsche Landesbank Girozentrale NORD/LB	GERMANY	x	x	
Nordea Bank AB (publ)	SWEDEN	x	x	x
Permanent Tsb Group Holdings P.L.C	IRELAND	x		
Piraeus Bank SA	GREECE	x		
Raiffeisen Bank International AG	AUSTRIA			x
Royal Bank of Scotland Group Plc (The)	BRITAIN	x	x	x
Skandinaviska Enskilda Banken AB	SWEDEN	x	x	x
Société Générale SA	FRANCE	x	x	x
Svenska Handelsbanken	SWEDEN	x	x	x
Swedbank AB	SWEDEN	x	x	x
UniCredit SpA	ITALY	x	x	x
Unione di Banche Italiane Scpa-UBI Banca	ITALY	x	x	x
Total number of EU banks included in our study sample		49	33	30
Total number of EU banks covered by the stress test		123	51	48
The share of the total assets of banks included in our study sample compared to that of banks covered by the stress test		77,75%	81,73%	77,01%

Sources: European Banking Authority (EBA) and Authors' calculation.

Notes: All the above companies are banks. To calculate the shares, we collect annual data on Total Assets from Bankscope Fitch IBCA and BankFocus (for the 2018 test), for all EU banks covered by our considered stress tests.

Table A.2: Countries in the final sample.

Country	Number of banks
Austria	3
Belgium	1
Britain	4
Denmark	1
France	3
Germany	9
Greece	4
Ireland	3
Italy	8
Netherlands	3
Norway	1
Portugal	3
Spain	6
Sweden	4
Total number of participating banks	53

Sources: European Banking Authority & Authors' calculation

Table A.3: Summary statistics of banks' Total Assets

Total Assets (in billions)	ALL	2014	2016	2018
N	112	49	33	30
Mean	703,8717	637,2755	720,4778	794,3788
Median	365,5558	283,9601	298,8026	588,2711
Std Dev.	688,7973	727,1822	661,6999	664,3031
Minimum	33,15208	33,15208	112,2722	108,0101
Maximum	2671,318	2671,318	2409,656	2521,771
p5	76,06909	51,86043	127,6002	146,979
p10	113,0975	68,06413	142,5803	157,4215
p25	185,7746	152,9858	217,467	269,5706
p75	1009,214	863,7195	1195,448	1014,867
p90	1732,154	2094,623	1664,991	1795,704
p95	2222,314	2222,314	2171,141	2341,232

Sources: Authors' calculation.

Appendix B: Summary statistics of the absolute Bid-Ask spreads (CDS liquidity proxy).

To measure the liquidity of the different maturities of CDS contract, following Tang and Yan (2013), Annaert *et al.* (2013) and Samaniego-Medina *et al.* (2016), we use the absolute Bid-Ask spread of the CDS quotes, i.e. the difference between ask and bid quotes. As liquidity increases, the size of the bid-ask spread narrows.

In this appendix, considering our sample of 53 listed euro area banks, we provide the summary statistics of the absolute bid-ask spreads (BAS) at the level of each year from 2010 to 2018. In each table, **N** is the number of observations. **Mean (SD)** is the average (standard deviation). **BAS_Ratio** corresponds to the Mean BAS of a maturity divided by that of the 5-Year maturity. This will allow us to compare the liquidity of the different maturities with each other. A BAS Ratio equal to 1 means that the maturity is as liquid as the 5-year maturity. When higher (lower) than one, this means that the maturity is less (more) liquid than the 5-year maturity.

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2010	6-Month	12136	34,6	47,9	17,2	2,3
	1-Year	11669	30,8	42,0	15,5	2,1
	2-Year	11669	24,7	30,5	13,9	1,7
	3-Year	12191	19,6	23,0	11,9	1,3
	4-Year	11408	17,2	18,4	11,0	1,2
	5-Year	12191	14,9	15,7	10,0	1,0
	7-Year	11669	14,4	14,9	9,3	1,0
2011	10-Year	12191	13,9	14,7	9,8	0,9
	All	95124	21,3	29,6	11,3	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2012	6-Month	11901	78,4	137,2	30,0	2,2
	1-Year	11381	74,9	135,8	27,1	2,1
	2-Year	11381	55,9	91,1	23,4	1,6
	3-Year	11901	43,6	70,1	19,4	1,2
	4-Year	11197	40,3	67,7	17,3	1,1
	5-Year	11903	35,8	66,7	15,0	1,0
	7-Year	11381	35,6	72,1	14,3	1,0
2013	10-Year	11901	35,7	82,2	13,3	1,0
	All	92946	50,0	96,0	18,9	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2014	6-Month	12030	106,0	216,5	37,5	2,4
	1-Year	11508	90,9	168,0	35,1	2,0
	2-Year	11508	67,3	107,7	30,7	1,5
	3-Year	12030	55,8	95,9	24,6	1,2
	4-Year	11508	51,1	87,6	21,9	1,1
	5-Year	12030	44,9	84,2	20,0	1,0
	7-Year	11508	48,1	91,4	20,0	1,1
2015	10-Year	12030	50,0	100,7	20,4	1,1
	All	94152	64,2	129,0	25,4	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2016	6-Month	12450	49,7	101,6	17,9	1,9
	1-Year	11928	51,3	100,4	19,9	2,0
	2-Year	11928	41,5	66,2	20,0	1,6
	3-Year	12450	35,1	52,8	20,0	1,3
	4-Year	11922	32,2	44,3	20,0	1,2
	5-Year	12450	26,2	38,4	16,7	1,0
	7-Year	11928	27,1	33,5	18,7	1,0
2017	10-Year	12450	26,1	32,0	18,4	1,0
	All	97506	36,1	65,1	19,4	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2018	6-Month	13406	22,9	39,0	10,8	1,4
	1-Year	12884	23,6	35,4	11,5	1,5
	2-Year	12884	22,2	24,5	13,4	1,4
	3-Year	13406	20,4	20,8	13,4	1,3
	4-Year	12884	18,9	17,9	11,7	1,2
	5-Year	13406	16,3	17,1	10,0	1,0
	7-Year	12884	19,4	16,8	13,3	1,2
2019	10-Year	13406	19,2	16,0	14,3	1,2
	All	105160	20,3	25,0	11,7	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2020	6-Month	13572	72,5	367,7	12,9	0,9
	1-Year	13236	68,9	305,1	12,2	0,8
	2-Year	13435	84,6	366,5	13,7	1,0
	3-Year	13560	94,7	443,1	13,7	1,1
	4-Year	13446	85,3	409,0	10,6	1,0
	5-Year	13572	83,2	418,6	10,0	1,0
	7-Year	13434	125,0	849,8	12,0	1,5
2021	10-Year	13572	101,0	533,3	13,8	1,2
	All	107827	89,4	488,7	12,1	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2022	6-Month	13572	71,5	186,6	15,0	1,1
	1-Year	13311	70,9	188,2	14,5	1,0
	2-Year	13572	85,0	280,1	14,9	1,2
	3-Year	13572	79,5	240,4	14,1	1,2
	4-Year	13572	72,4	221,2	13,7	1,1
	5-Year	13572	68,0	208,8	11,7	1,0
	7-Year	13572	62,6	177,5	15,6	0,9
2023	10-Year	13572	70,1	220,9	16,9	1,0
	All	108315	72,5	217,9	14,9	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2024	6-Month	13007	52,9	134,3	9,5	0,9
	1-Year	12965	52,6	130,3	10,0	0,9
	2-Year	13225	52,3	134,4	10,5	0,9
	3-Year	13225	64,3	180,2	10,4	1,1
	4-Year	13225	59,2	168,0	9,9	1,0
	5-Year	13225	57,8	169,1	9,8	1,0
	7-Year	13225	65,6	195,7	12,1	1,1
2025	10-Year	13225	81,5	290,4	14,2	1,4
	All	105322	60,8	182,4	10,6	

Year	Maturity	N	Mean	SD	Median	BAS_Ratio
2018	6-Month	13572	43,4	115,9	7,4	0,9
	1-Year	13572	46,6	120,9	8,0	1,0
	2-Year	13572	46,2	122,2	8,5	1,0
	3-Year	13572	54,5	150,3	9,8	1,1
	4-Year	13572	50,0	140,4	7,2	1,0
	5-Year	13572	47,8	138,2	5,7	1,0
	7-Year	13572	52,7	145,7	10,0	1,1
	10-Year	13572	58,5	184,6	10,0	1,2
	All	108576	50,0	141,4	9,2	

Source: Authors' calculation.

Appendix C: Summary statistics of tested banks' Capital Ratio before and during the tests.

This appendix reports the summary statistics of the capital ratios of tested banks before and during the different stress tests. Table A applies to the *Common Equity Tier 1 ratio* while Table B applies to the *Tier 1 ratio*. For the year 2009 in Table A, we only have 21 observations due to unavailable data on the Common Equity Tier 1 ratio of some banks.

Table C.1: Summary statistics of tested banks' Common Equity Tier 1 Ratio.

Stress Test	Year	N	Mean	Median	SD	Min	Max	p10	p90
2010 Exercise	2009	21	8,60%	8,50%	1,49%	6,40%	12,40%	7,10%	10,70%
	2010	41	8,70%	8,70%	1,84%	3,82%	12,60%	6,18%	10,80%
2011 Exercise	2010	40	8,81%	8,70%	1,70%	3,82%	12,60%	6,44%	10,85%
	2011	40	9,45%	9,38%	1,84%	3,82%	15,10%	8,17%	11,10%
2014 Exercise	2013	50	12,19%	11,78%	2,36%	7,10%	18,70%	9,85%	15,50%
	2014	50	12,65%	11,95%	2,54%	8,67%	21,20%	10,23%	15,95%
2016 Exercise	2015	33	13,91%	13,15%	3,08%	9,60%	24,10%	10,90%	16,50%
	2016	33	13,54%	12,62%	3,90%	8,15%	25,10%	10,20%	18,40%
2018 Exercise	2017	30	14,75%	13,50%	3,46%	10,84%	24,60%	11,48%	19,45%
	2018	30	14,00%	13,45%	2,30%	10,90%	18,40%	11,40%	17,15%

Source: Authors' calculation.

Table C.2: Summary statistics of tested banks' Tier 1 Ratio.

Stress Test	Year	N	Mean	Median	SD	Min	Max	p10	p90
2010 Exercise	2009	41	10,06%	9,80%	1,81%	7,20%	14,10%	7,96%	12,80%
	2010	41	10,44%	10,54%	2,34%	4,30%	15,70%	7,47%	12,90%
2011 Exercise	2010	40	10,59%	10,54%	2,15%	5,60%	15,70%	7,92%	13,20%
	2011	40	10,91%	10,55%	2,42%	4,20%	17,00%	8,80%	14,03%
2014 Exercise	2013	50	13,25%	12,70%	2,56%	7,82%	19,60%	10,60%	16,95%
	2014	50	13,56%	12,90%	2,78%	8,67%	22,40%	10,85%	16,85%
2016 Exercise	2015	33	15,22%	13,80%	3,58%	11,50%	26,90%	12,08%	19,10%
	2016	33	15,15%	13,90%	4,47%	8,17%	28,70%	11,53%	20,70%
2018 Exercise	2017	30	16,44%	15,08%	3,92%	11,56%	27,30%	12,48%	21,95%
	2018	30	15,70%	14,73%	2,64%	11,70%	20,20%	12,85%	19,60%

Source: Authors' calculation.

Appendix D: Determinants of the market reaction to the disclosure of the 2010 and 2011 EU-wide stress test results.

Each table in this appendix reports the estimates from two distinct series of regressions. In each series, we regress the market reaction (to the divulgation of EU-wide stress test results) over a set of two stressed indicators and several control variables. These two series of regressions differ only in the stress test outcomes used to compute the two stressed indicators. For the series of regressions of the *baseline* scenario (*adverse* scenario), the stressed indicators are based solely on the *baseline* scenario outcomes (*adverse* scenario outcomes) estimated over a 2-year time horizon. Then, in each series, we have eight columns which present the estimates of eight distinct regressions that differ from each other only in the maturity used to calculate the market response (i.e. the dependent variable), following Agbodji *et al.* (2021) suggestions. We obtain the market reaction (at the level of all CDS maturities) by estimating the Cumulative Abnormal CDS spread Returns (CAR). We estimate it using an event study methodology over a four-day event window $(-1,+2)$, the event being the stress test results' disclosure. **Table A-1, A-2 & A-3 apply to the 2010 EU-wide stress test, while Table B-1, B-2 & B-3 apply to the 2011 exercise. In Tables A-1 & B-1, we consider all the selected control variables. In Tables A-2 and A-3 (B-2 & B-3), we remove those that are not statistically significant in Table A-1 (Table B-1). Table C applies to the 2014, 2016 and 2018 exercises.**

As stressed indicators, we have the **Δ Tier1 Ratio** which is the Change in tier 1 ratio caused by the simulated scenarios. **Δ Total Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** which is the Ratio of liabilities to the sum of liabilities and equity. **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. For **Table A-1, A-2, A-3, B-1, B-2 & B-3**, we use the ordinary least square (OLS) model because of the limited number of observations. For **Table C**, following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics (that exist and have important explanatory power for the market reactions) and to improve the efficiency of our estimates. Robust standard errors (in parenthesis) are clustered by bank. *, **, *** indicate respectively significance at 10%, 5% and 1% levels.

Table D.1: Determinants of the market reaction to the 2010 EU-wide stress test.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline							Adverse								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔTier1 Ratio		-1.641*	-1.628*	-1.721**	-1.541***	-1.640***	-1.477**	-1.757***	-1.696**	-1.194	-1.079	-1.007	-1.455**	-1.522***	-1.395**	-1.793***	-1.695**
		(0.853)	(0.847)	(0.745)	(0.511)	(0.467)	(0.570)	(0.567)	(0.709)	(1.140)	(1.144)	(1.089)	(0.623)	(0.544)	(0.544)	(0.601)	(0.708)
ΔTotal Risk		-0.0794	-0.118	0.0473	0.449*	0.720**	0.922**	0.798**	0.651*	-0.0608	-0.0814	-0.00404	0.571*	0.836**	1.025**	0.923**	0.787*
		(0.369)	(0.366)	(0.323)	(0.250)	(0.310)	(0.362)	(0.322)	(0.344)	(0.411)	(0.416)	(0.422)	(0.292)	(0.393)	(0.425)	(0.371)	(0.402)
Control Variables																	
Leverage		-0.979*	-1.067*	-1.153**	-1.109**	-1.330***	-1.397***	-1.153**	-1.372***	-1.338**	-1.407**	-1.556**	-1.482***	-1.739***	-1.810***	-1.615***	-1.805***
		(0.573)	(0.583)	(0.540)	(0.432)	(0.421)	(0.490)	(0.417)	(0.444)	(0.577)	(0.586)	(0.573)	(0.435)	(0.425)	(0.476)	(0.410)	(0.442)
Size		-0.00797	-0.00694	-0.0107	-0.0114	-0.00357	-0.00324	-0.0110	-0.00837	-0.00684	-0.00580	-0.00949	-0.0146	-0.00881	-0.00907	-0.0161*	-0.0128
		(0.0108)	(0.0111)	(0.0107)	(0.00927)	(0.00813)	(0.00747)	(0.00787)	(0.00819)	(0.0106)	(0.0111)	(0.0110)	(0.00877)	(0.00894)	(0.00852)	(0.00838)	(0.00954)
Funding Stability		-0.285*	-0.289*	-0.273	-0.222*	-0.279**	-0.339***	-0.184	-0.214*	-0.331*	-0.332*	-0.315	-0.346**	-0.431***	-0.502***	-0.353***	-0.369***
		(0.157)	(0.161)	(0.164)	(0.115)	(0.113)	(0.119)	(0.108)	(0.117)	(0.187)	(0.188)	(0.189)	(0.127)	(0.133)	(0.141)	(0.112)	(0.119)
Asset Quality		1.552	1.525	1.412	0.885	1.304	1.558	0.710	0.599	1.338	1.336	1.152	0.615	0.978	1.208	0.340	0.269
		(0.951)	(0.957)	(0.938)	(0.796)	(1.004)	(1.126)	(0.816)	(0.712)	(0.913)	(0.924)	(0.917)	(0.728)	(0.940)	(1.029)	(0.720)	(0.644)
Risk-Free Rate		-2.232	-2.358	-3.062	-3.623*	-2.724	-1.968	-4.580**	-4.395*	-1.910	-2.097	-2.881	-1.199	0.432	1.581	-1.049	-1.253
		(2.833)	(2.861)	(2.631)	(1.838)	(1.747)	(1.858)	(2.094)	(2.269)	(3.770)	(3.779)	(3.719)	(2.225)	(2.518)	(2.625)	(2.417)	(2.531)
Economic Environment		0.223*	0.233*	0.182	0.0548	0.00286	0.0140	-0.169	-0.114	0.265**	0.274**	0.216	0.107	0.0543	0.0606	-0.110	-0.0546
		(0.121)	(0.133)	(0.140)	(0.0689)	(0.0722)	(0.0753)	(0.106)	(0.115)	(0.116)	(0.128)	(0.139)	(0.0839)	(0.0979)	(0.0990)	(0.130)	(0.131)
Constant		1.142	1.201	1.429**	1.469**	1.464**	1.502**	1.590***	1.711***	1.424**	1.466**	1.756**	1.815***	1.879***	1.926***	2.038***	2.123***
		(0.726)	(0.733)	(0.673)	(0.566)	(0.546)	(0.579)	(0.521)	(0.501)	(0.688)	(0.700)	(0.673)	(0.564)	(0.511)	(0.530)	(0.501)	(0.464)
Observations		38	37	37	38	36	38	36	38	38	37	37	38	36	38	36	38
R-squared		0.431	0.436	0.452	0.532	0.628	0.634	0.634	0.590	0.418	0.420	0.422	0.516	0.603	0.614	0.613	0.575
Adjusted R-squared		0.273	0.274	0.296	0.403	0.518	0.533	0.526	0.477	0.258	0.254	0.256	0.383	0.486	0.507	0.499	0.457
Prob. > F		0.00812	0.00745	0.00196	7.60e-099	2.5e-092	4.4e-082	5.3e-072	5.1e-07	0.00374	0.00656	0.00155	2.19e-05	1.15e-053	9.8e-06	1.88e-05	6.06e-06

Source: Authors' calculation.

Table D.2: Determinants of the market reaction to the 2010 EU-wide stress test, with/without non statistically significant control variables.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario							Time Horizon								
Scenarios		Baseline (with non-statistically significant control var.)							Baseline (without non-statistically significant control var.)								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔTier1 Ratio		-1.641*	-1.628*	-1.721**	-1.541***	-1.640***	-1.477**	-1.757***	-1.696**	-1.683*	-1.696*	-1.802**	-1.573**	-1.608**	-1.431*	-1.641**	-1.625*
		(0.853)	(0.847)	(0.745)	(0.511)	(0.467)	(0.570)	(0.567)	(0.709)	(0.889)	(0.896)	(0.815)	(0.658)	(0.713)	(0.779)	(0.797)	(0.868)
ΔTotal Risk		-0.0794	-0.118	0.0473	0.449*	0.720**	0.922**	0.798**	0.651*	-0.308	-0.327	-0.148	0.371	0.595**	0.699**	0.776**	0.683*
		(0.369)	(0.366)	(0.323)	(0.250)	(0.310)	(0.362)	(0.322)	(0.344)	(0.418)	(0.417)	(0.408)	(0.289)	(0.272)	(0.275)	(0.362)	(0.378)
Control Variables																	
Leverage		-0.979*	-1.067*	-1.153**	-1.109**	-1.330***	-1.397***	-1.153**	-1.372***	-1.780***	-1.819***	-1.812***	-1.495***	-1.953***	-2.187***	-1.572***	-1.671***
		(0.573)	(0.583)	(0.540)	(0.432)	(0.421)	(0.490)	(0.417)	(0.444)	(0.643)	(0.645)	(0.602)	(0.450)	(0.479)	(0.520)	(0.407)	(0.378)
Size		-0.00797	-0.00694	-0.0107	-0.0114	-0.00357	-0.00324	-0.0110	-0.00837								
		(0.0108)	(0.0111)	(0.0107)	(0.00927)	(0.00813)	(0.00747)	(0.00787)	(0.00819)								
Funding Stability		-0.285*	-0.289*	-0.273	-0.222*	-0.279**	-0.339***	-0.184	-0.214*	-0.301**	-0.304**	-0.310**	-0.294***	-0.368***	-0.411***	-0.334***	-0.345***
		(0.157)	(0.161)	(0.164)	(0.115)	(0.113)	(0.119)	(0.108)	(0.117)	(0.116)	(0.118)	(0.114)	(0.0819)	(0.0817)	(0.0865)	(0.0698)	(0.0699)
Asset Quality		1.552	1.525	1.412	0.885	1.304	1.558	0.710	0.599								
		(0.951)	(0.957)	(0.938)	(0.796)	(1.004)	(1.126)	(0.816)	(0.712)								
Risk-Free Rate		-2.232	-2.358	-3.062	-3.623*	-2.724	-1.968	-4.580**	-4.395*								
		(2.833)	(2.861)	(2.631)	(1.838)	(1.747)	(1.858)	(2.094)	(2.269)								
Economic Environment		0.223*	0.233*	0.182	0.0548	0.00286	0.0140	-0.169	-0.114								
		(0.121)	(0.133)	(0.140)	(0.0689)	(0.0722)	(0.0753)	(0.106)	(0.115)								
Constant		1.142	1.201	1.429**	1.469**	1.464**	1.502**	1.590***	1.711***	1.708**	1.744***	1.749***	1.454***	1.924***	2.159***	1.544***	1.633***
		(0.726)	(0.733)	(0.673)	(0.566)	(0.546)	(0.579)	(0.521)	(0.501)	(0.631)	(0.633)	(0.592)	(0.448)	(0.480)	(0.521)	(0.405)	(0.376)
Observations		38	37	37	38	36	38	36	38	39	38	38	39	37	39	37	39
R-squared		0.431	0.436	0.452	0.532	0.628	0.634	0.634	0.590	0.313	0.323	0.343	0.433	0.545	0.536	0.539	0.525
Adjusted R-squared		0.273	0.274	0.296	0.403	0.518	0.533	0.526	0.477	0.232	0.241	0.263	0.366	0.488	0.482	0.481	0.469
Prob. > F		0.00812	0.00745	0.00196	7.60e-099	25e-092	44e-082	53e-072	51e-07	0.00513	0.00502	0.00190	0.000465	9.94e-053	44e-051	2.26e-056	0.07e-06

Source: Authors' calculation.

Table D.3: Determinants of the market reaction to the 2010 EU-wide stress test, with/without non-statistically significant control variables.

Market reaction	CAR [-1; 2]																	
	Horizons		2-year Scenario Time Horizon															
	Scenarios		Adverse (with non-statistically significant control var.)								Adverse (without non-statistically significant control var.)							
	Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																		
ΔTier1 Ratio	-1.194 (1.140)	-1.079 (1.144)	-1.007 (1.089)	-1.455** (0.623)	-1.522*** (0.544)	-1.395** (0.544)	-1.793*** (0.601)	-1.695** (0.708)	-1.107 (1.127)	-1.094 (1.131)	-0.999 (1.083)	-1.297* (0.652)	-1.578** (0.609)	-1.272** (0.591)	-1.732*** (0.571)	-1.687** (0.675)		
ΔTotal Risk	-0.0608 (0.411)	-0.0814 (0.416)	-0.00404 (0.422)	0.571* (0.292)	0.836** (0.393)	1.025** (0.425)	0.923** (0.371)	0.787* (0.402)	-0.119 (0.288)	-0.120 (0.288)	-0.0234 (0.301)	0.407** (0.195)	0.573*** (0.200)	0.642*** (0.211)	0.702** (0.276)	0.645** (0.283)		
Control Variables																		
Leverage	-1.338** (0.577)	-1.407** (0.586)	-1.556** (0.573)	-1.482*** (0.435)	-1.739*** (0.425)	-1.810*** (0.476)	-1.615*** (0.410)	-1.805*** (0.442)	-1.949*** (0.554)	-1.993*** (0.554)	-2.009*** (0.531)	-1.777*** (0.427)	-2.283*** (0.474)	-2.507*** (0.528)	-1.933*** (0.397)	-2.018*** (0.353)		
Size	-0.00684 (0.0106)	-0.00580 (0.0111)	-0.00949 (0.0110)	-0.0146 (0.00877)	-0.00881 (0.00894)	-0.00907 (0.00852)	-0.0161* (0.00838)	-0.0128 (0.00954)										
Funding Stability	-0.331* (0.187)	-0.332* (0.188)	-0.315 (0.189)	-0.346** (0.127)	-0.431*** (0.133)	-0.502*** (0.141)	-0.353*** (0.112)	-0.369*** (0.119)	-0.329*** (0.118)	-0.330*** (0.121)	-0.337*** (0.118)	-0.330*** (0.0814)	-0.408*** (0.0820)	-0.448*** (0.0864)	-0.378*** (0.0726)	-0.389*** (0.0734)		
Asset Quality	1.338 (0.913)	1.336 (0.924)	1.152 (0.917)	0.615 (0.728)	0.978 (0.940)	1.208 (1.029)	0.340 (0.720)	0.269 (0.644)										
Risk-Free Rate	-1.910 (3.770)	-2.097 (3.779)	-2.881 (3.719)	-1.199 (2.225)	0.432 (2.518)	1.581 (2.625)	-1.049 (2.417)	-1.253 (2.531)										
Economic Environment	0.265** (0.116)	0.274** (0.128)	0.216 (0.139)	0.107 (0.0839)	0.0543 (0.0979)	0.0606 (0.0990)	-0.110 (0.130)	-0.0546 (0.131)										
Constant	1.424** (0.688)	1.466** (0.700)	1.756** (0.673)	1.815*** (0.564)	1.879*** (0.511)	1.926*** (0.530)	2.038*** (0.501)	2.123*** (0.464)	1.854*** (0.548)	1.894*** (0.550)	1.919*** (0.528)	1.700*** (0.425)	2.210*** (0.471)	2.438*** (0.525)	1.857*** (0.392)	1.935*** (0.350)		
Observations	38	37	37	38	36	38	36	38	39	38	38	39	37	39	37	39		
R-squared	0.418	0.420	0.422	0.516	0.603	0.614	0.613	0.575	0.300	0.307	0.314	0.418	0.540	0.528	0.540	0.531		
Adjusted R-squared	0.258	0.254	0.256	0.383	0.486	0.507	0.499	0.457	0.217	0.223	0.231	0.350	0.483	0.472	0.483	0.476		
Prob. > F	0.00374	0.00656	0.00155	2.19e-05	1.15e-05	3.98e-06	1.88e-05	6.06e-06	0.0140	0.0119	0.00658	0.000212	2.26e-05	1.17e-05	8.38e-06	1.81e-06		

Source: Authors' calculation.

Table D.4: Determinants of the market reaction to the 2011 EU-wide stress test, with/without non statistically significant control variables.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline							Adverse								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
Δ Tier1 Ratio		0.722 (1.285)	0.724 (1.287)	0.933 (1.323)	0.946 (1.313)	0.718 (1.546)	0.329 (1.278)	0.389 (1.176)	0.222 (1.117)	0.158 (0.944)	0.238 (0.917)	0.410 (0.958)	0.349 (0.967)	0.0976 (1.133)	-0.184 (0.815)	0.0638 (0.743)	-0.0421 (0.798)
Δ Total Risk		-0.238 (0.866)	-0.362 (0.855)	-0.250 (0.871)	-0.0615 (0.784)	0.371 (0.918)	0.457 (0.627)	0.500 (0.592)	0.504 (0.623)	-0.136 (0.524)	-0.256 (0.524)	-0.208 (0.545)	-0.0747 (0.514)	-0.0952 (0.521)	-0.0206 (0.424)	-0.193 (0.426)	-0.197 (0.447)
Control Variables																	
Leverage		0.397 (1.189)	0.334 (1.216)	0.262 (1.279)	0.317 (1.204)	0.773 (1.272)	0.894 (1.204)	-0.157 (1.094)	-0.634 (0.995)	0.394 (1.427)	0.470 (1.429)	0.453 (1.482)	0.390 (1.468)	0.738 (1.590)	0.718 (1.471)	0.000706 (1.321)	-0.520 (1.127)
Size		-0.0222 (0.0140)	-0.0215 (0.0142)	-0.0218 (0.0142)	-0.0229 (0.0136)	-0.0297* (0.0174)	-0.0297** (0.0131)	-0.0243** (0.0117)	-0.0325*** (0.0114)	-0.0224* (0.0118)	-0.0207* (0.0116)	-0.0205* (0.0114)	-0.0221* (0.0113)	-0.0251* (0.0136)	-0.0272** (0.0113)	-0.0186* (0.00963)	-0.0266** (0.0104)
Funding Stability		-0.0527 (0.133)	-0.0605 (0.136)	-0.0780 (0.145)	-0.0693 (0.141)	-0.0589 (0.131)	-0.0436 (0.123)	-0.158 (0.102)	-0.195* (0.102)	-0.0437 (0.120)	-0.0437 (0.123)	-0.0522 (0.129)	-0.0491 (0.127)	-0.0353 (0.121)	-0.0338 (0.117)	-0.119 (0.109)	-0.164 (0.106)
Asset Quality		-0.464 (0.821)	-0.555 (0.853)	-0.647 (0.895)	-0.568 (0.818)	-0.184 (0.863)	0.0665 (0.805)	-0.311 (0.733)	-0.509 (0.700)	-0.434 (0.892)	-0.429 (0.900)	-0.520 (0.920)	-0.536 (0.898)	-0.259 (0.903)	-0.101 (0.879)	-0.322 (0.758)	-0.519 (0.683)
Risk-Free Rate		-0.816 (2.952)	-0.690 (2.910)	-0.812 (3.093)	-0.999 (2.982)	-1.870 (3.095)	-2.536 (2.128)	-2.545 (1.610)	-3.579* (1.894)	-1.281 (3.017)	-1.192 (2.944)	-1.319 (3.113)	-1.484 (3.060)	-1.856 (3.048)	-2.568 (2.160)	-2.642 (1.817)	-3.529* (1.967)
Economic Environment		-0.286** (0.137)	-0.273* (0.137)	-0.271* (0.152)	-0.289** (0.135)	-0.261 (0.155)	-0.260** (0.120)	-0.237* (0.120)	-0.244* (0.131)	-0.298* (0.154)	-0.284* (0.152)	-0.285* (0.165)	-0.308* (0.155)	-0.264 (0.173)	-0.267* (0.138)	-0.251* (0.136)	-0.254* (0.138)
Constant		0.350 (1.085)	0.394 (1.104)	0.480 (1.158)	0.451 (1.071)	0.217 (1.057)	0.114 (1.081)	1.045 (0.904)	1.778** (0.846)	0.379 (1.322)	0.264 (1.324)	0.285 (1.359)	0.385 (1.335)	0.132 (1.394)	0.221 (1.380)	0.750 (1.202)	1.511 (1.051)
Observations		38	37	36	38	35	38	36	38	38	37	36	38	35	38	36	38
R-squared		0.366	0.356	0.331	0.356	0.315	0.324	0.267	0.289	0.352	0.343	0.316	0.341	0.306	0.316	0.260	0.283
Adjusted R-squared		0.191	0.172	0.132	0.178	0.104	0.137	0.0492	0.0925	0.174	0.156	0.113	0.159	0.0922	0.128	0.0406	0.0851
Prob. > F		0.0592	0.0722	0.0570	0.0307	0.172	0.201	0.0182	0.00167	0.0589	0.0744	0.0513	0.0271	0.147	0.232	0.0999	0.0130

Source: Authors' calculation.

Table D.5: Determinants of the market reaction to the 2011 EU-wide stress test, with/without non-statistically significant control variables.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline (with non-statistically significant control var.)							Baseline (without non-statistically significant control var.)								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
Δ Tier1 Ratio		0.722 (1.285)	0.724 (1.287)	0.933 (1.323)	0.946 (1.313)	0.718 (1.546)	0.329 (1.278)	0.389 (1.176)	0.222 (1.117)	0.666 (0.983)	0.702 (0.979)	0.939 (1.029)	0.932 (1.029)	0.336 (1.080)	0.0267 (1.001)	0.313 (0.946)	0.302 (0.993)
Δ Total Risk		-0.238 (0.866)	-0.362 (0.855)	-0.250 (0.871)	-0.0615 (0.784)	0.371 (0.918)	0.457 (0.627)	0.500 (0.592)	0.504 (0.623)	-0.304 (0.721)	-0.373 (0.708)	-0.259 (0.712)	-0.100 (0.640)	-0.0166 (0.552)	0.0902 (0.466)	-0.0138 (0.501)	-0.0813 (0.529)
Control Variables																	
Leverage		0.397 (1.189)	0.334 (1.216)	0.262 (1.279)	0.317 (1.204)	0.773 (1.272)	0.894 (1.204)	-0.157 (1.094)	-0.634 (0.995)								
Size		-0.0222 (0.0140)	-0.0215 (0.0142)	-0.0218 (0.0142)	-0.0229 (0.0136)	-0.0297* (0.0174)	-0.0297** (0.0131)	-0.0243** (0.0117)	-0.0325*** (0.0114)	-0.0147 (0.0105)	-0.0146 (0.0105)	-0.0143 (0.0108)	-0.0150 (0.0104)	-0.0167 (0.0116)	-0.0172 (0.0103)	-0.00959 (0.0106)	-0.0150 (0.0116)
Funding Stability		-0.0527 (0.133)	-0.0605 (0.136)	-0.0780 (0.145)	-0.0693 (0.141)	-0.0589 (0.131)	-0.0436 (0.123)	-0.158 (0.102)	-0.195* (0.102)								
Asset Quality		-0.464 (0.821)	-0.555 (0.853)	-0.647 (0.895)	-0.568 (0.818)	-0.184 (0.863)	0.0665 (0.805)	-0.311 (0.733)	-0.509 (0.700)								
Risk-Free Rate		-0.816 (2.952)	-0.690 (2.910)	-0.812 (3.093)	-0.999 (2.982)	-1.870 (3.095)	-2.536 (2.128)	-2.545 (1.610)	-3.579* (1.894)								
Economic Environment		-0.286** (0.137)	-0.273* (0.137)	-0.271* (0.152)	-0.289** (0.135)	-0.261 (0.155)	-0.260** (0.120)	-0.237* (0.120)	-0.244* (0.131)	-0.198** (0.0756)	-0.184** (0.0767)	-0.170* (0.0849)	-0.186** (0.0799)	-0.130* (0.0762)	-0.120 (0.0730)	-0.101 (0.0744)	-0.0762 (0.0813)
Constant		0.350 (1.085)	0.394 (1.104)	0.480 (1.158)	0.451 (1.071)	0.217 (1.057)	0.114 (1.081)	1.045 (0.904)	1.778** (0.846)	0.454 (0.281)	0.452 (0.280)	0.439 (0.291)	0.455 (0.280)	0.504 (0.309)	0.515* (0.275)	0.343 (0.282)	0.490 (0.308)
Observations		38	37	36	38	35	38	36	38	39	38	37	39	36	39	37	39
R-squared		0.366	0.356	0.331	0.356	0.315	0.324	0.267	0.289	0.319	0.303	0.270	0.301	0.233	0.232	0.139	0.136
Adjusted R-squared		0.191	0.172	0.132	0.178	0.104	0.137	0.0492	0.0925	0.239	0.218	0.178	0.219	0.134	0.142	0.0312	0.0339
Prob. > F		0.0592	0.0722	0.0570	0.0307	0.172	0.201	0.0182	0.00167	0.0717	0.102	0.150	0.0998	0.329	0.253	0.601	0.530

Source: Authors' calculation.

Table D.6: Determinants of the market reaction to the 2011 EU-wide stress test, with/without non statistically significant control variables.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Adverse (with non-statistically significant control var.)							Adverse (without non-statistically significant control var.)								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔTier1 Ratio		0.158 (0.944)	0.238 (0.917)	0.410 (0.958)	0.349 (0.967)	0.0976 (1.133)	-0.184 (0.815)	0.0638 (0.743)	-0.0421 (0.798)	0.000895 (0.830)	0.0501 (0.825)	0.247 (0.881)	0.213 (0.873)	-0.375 (0.855)	-0.506 (0.724)	0.0458 (0.718)	0.181 (0.809)
ΔTotal Risk		-0.136 (0.524)	-0.256 (0.524)	-0.208 (0.545)	-0.0747 (0.514)	-0.0952 (0.521)	-0.0206 (0.424)	-0.193 (0.426)	-0.197 (0.447)	-0.322 (0.487)	-0.418 (0.478)	-0.376 (0.497)	-0.240 (0.477)	-0.404 (0.472)	-0.245 (0.417)	-0.437 (0.394)	-0.445 (0.415)
Control Variables																	
Leverage		0.394 (1.427)	0.470 (1.429)	0.453 (1.482)	0.390 (1.468)	0.738 (1.590)	0.718 (1.471)	0.000706 (1.321)	-0.520 (1.127)								
Size		-0.0224* (0.0118)	-0.0207* (0.0116)	-0.0205* (0.0114)	-0.0221* (0.0113)	-0.0251* (0.0136)	-0.0272** (0.0113)	-0.0186* (0.00963)	-0.0266** (0.0104)	-0.0132 (0.00913)	-0.0123 (0.00889)	-0.0116 (0.00904)	-0.0128 (0.00901)	-0.0130 (0.00933)	-0.0154 (0.00935)	-0.00522 (0.00960)	-0.0104 (0.0109)
Funding Stability		-0.0437 (0.120)	-0.0437 (0.123)	-0.0522 (0.129)	-0.0491 (0.127)	-0.0353 (0.121)	-0.0338 (0.117)	-0.119 (0.109)	-0.164 (0.106)								
Asset Quality		-0.434 (0.892)	-0.429 (0.900)	-0.520 (0.920)	-0.536 (0.898)	-0.259 (0.903)	-0.101 (0.879)	-0.322 (0.758)	-0.519 (0.683)								
Risk-Free Rate		-1.281 (3.017)	-1.192 (2.944)	-1.319 (3.113)	-1.484 (3.060)	-1.856 (3.048)	-2.568 (2.160)	-2.642 (1.817)	-3.529* (1.967)								
Economic Environment		-0.298* (0.154)	-0.284* (0.152)	-0.285* (0.165)	-0.308* (0.155)	-0.264 (0.173)	-0.267* (0.138)	-0.251* (0.136)	-0.254* (0.138)	-0.194** (0.0751)	-0.178** (0.0770)	-0.165* (0.0857)	-0.188** (0.0791)	-0.125 (0.0760)	-0.118 (0.0706)	-0.101 (0.0721)	-0.0787 (0.0778)
Constant		0.379 (1.322)	0.264 (1.324)	0.285 (1.359)	0.385 (1.335)	0.132 (1.394)	0.221 (1.380)	0.750 (1.202)	1.511 (1.051)	0.425* (0.247)	0.406 (0.241)	0.387 (0.247)	0.410 (0.245)	0.416 (0.254)	0.470* (0.253)	0.242 (0.258)	0.384 (0.290)
Observations		38	37	36	38	35	38	36	38	39	38	37	39	36	39	37	39
R-squared		0.352	0.343	0.316	0.341	0.306	0.316	0.260	0.283	0.312	0.300	0.264	0.291	0.242	0.242	0.171	0.172
Adjusted R-squared		0.174	0.156	0.113	0.159	0.0922	0.128	0.0406	0.0851	0.231	0.215	0.172	0.207	0.144	0.152	0.0673	0.0748
Prob. > F		0.0589	0.0744	0.0513	0.0271	0.147	0.232	0.0999	0.0130	0.0487	0.0600	0.0671	0.0464	0.249	0.292	0.381	0.266

Source: Authors' calculation.

Table D.7: Determinants of the market reactions to the 2014, 2016 and 2018 EU-wide stress tests.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
Δ Tier1 Ratio		0.546 (0.912)	1.283 (0.949)	1.479 (1.004)	1.242 (0.965)	0.746 (0.854)	0.573 (0.826)	0.763 (0.711)	0.874 (0.756)	0.582 (1.157)	0.876 (1.185)	1.221 (1.052)	1.145 (0.998)	-0.217 (0.607)	-0.792 (0.561)	1.023 (0.749)	0.611 (0.805)
Δ Total Risk		2.745*** (0.904)	2.716*** (0.879)	2.711*** (0.905)	2.283*** (0.792)	1.753*** (0.632)	1.099* (0.641)	1.701** (0.671)	1.770** (0.754)	0.594 (0.974)	0.329 (1.061)	0.369 (1.000)	0.269 (0.837)	-0.546 (0.584)	-0.627 (0.535)	-0.00814 (0.673)	-0.137 (0.739)
Control Variables																	
Leverage		1.805 (1.939)	2.326 (1.782)	2.553 (1.785)	1.468 (1.427)	1.843 (1.395)	1.446 (1.274)	2.195* (1.242)	1.938* (1.131)	1.614 (2.110)	2.026 (2.024)	1.698 (2.077)	1.154 (1.663)	1.258 (1.718)	1.397 (1.461)	1.674 (1.363)	1.655 (1.317)
Size		0.0315 (0.0792)	0.0665 (0.0645)	0.0637 (0.0614)	0.0556 (0.0531)	-0.0362 (0.0472)	-0.0651 (0.0583)	-0.0362 (0.0387)	-0.00819 (0.0462)	-0.0482 (0.0863)	-0.0334 (0.0725)	-0.0363 (0.0620)	-0.0340 (0.0523)	-0.124*** (0.0436)	-0.126*** (0.0457)	-0.115*** (0.0431)	-0.0899** (0.0441)
Funding Stability		0.128 (0.225)	0.168 (0.228)	0.101 (0.238)	0.00219 (0.209)	0.151 (0.177)	0.0986 (0.179)	-0.0134 (0.220)	-0.0998 (0.204)	-0.00267 (0.222)	0.0204 (0.227)	-0.0481 (0.235)	-0.112 (0.200)	-0.0374 (0.188)	-0.0320 (0.189)	-0.115 (0.216)	-0.230 (0.210)
Asset Quality		-1.119* (0.605)	-0.787 (0.576)	-0.734 (0.562)	-0.572 (0.565)	-0.761 (0.513)	-0.884 (0.547)	-0.759 (0.643)	-0.781 (0.552)	-1.299* (0.686)	-0.948 (0.654)	-0.814 (0.639)	-0.687 (0.634)	-1.005* (0.573)	-1.138** (0.558)	-0.776 (0.606)	-0.949 (0.584)
Risk-Free Rate		0.326 (1.512)	-0.265 (1.236)	-0.886 (1.054)	-1.645 (1.035)	-1.914* (0.991)	-2.414** (1.007)	-1.581 (1.106)	-1.854* (1.054)	-0.00984 (1.871)	-0.922 (1.609)	-1.728 (1.388)	-2.386* (1.295)	-2.016* (1.046)	-2.213** (1.061)	-2.126* (1.265)	-2.307* (1.239)
Economic Environment		-0.0616 (0.114)	-0.107 (0.115)	-0.0662 (0.102)	-0.0297 (0.0907)	0.0896 (0.0936)	0.168 (0.101)	0.130 (0.0884)	0.0196 (0.0856)	-0.0149 (0.0985)	-0.0494 (0.0984)	-0.0155 (0.0926)	0.0214 (0.0818)	0.157* (0.0823)	0.229*** (0.0832)	0.175** (0.0861)	0.0735 (0.0783)
Constant		-2.551 (2.735)	-3.994* (2.323)	-4.093* (2.383)	-2.814 (1.812)	-0.777 (1.604)	0.394 (1.566)	-1.041 (1.671)	-1.494 (1.545)	-0.153 (2.743)	-0.922 (2.366)	-0.488 (2.364)	-0.0128 (1.895)	2.217 (1.724)	2.131 (1.458)	1.662 (1.462)	1.060 (1.403)
Observations		108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared		0.169	0.187	0.200	0.214	0.451	0.474	0.233	0.284	0.105	0.116	0.133	0.161	0.405	0.466	0.205	0.240
Adjusted R-squared		0.102	0.120	0.134	0.151	0.406	0.432	0.170	0.226	0.0332	0.0428	0.0610	0.0937	0.356	0.423	0.140	0.179
Number of Banks		53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F		0.00287	0.0154	0.0462	0.0547	0.0003459	2.6e-070	0.000500	0.0120	0.500	0.499	0.379	0.217	6.96e-052	2.29e-071	1.41e-05	0.00367
Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering		Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Appendix E: Determinants of the market reaction to the disclosure of EU stress test results [*MODEL WITH LESS CONTROL VARIABLES*].

Each table in this appendix reports the estimates from two distinct series of panel regressions. In each serie, we regress the market reaction (to the divulgation of the 2014, 2016 and 2018 EU-wide stress test results) over a set of five stressed indicators and several control variables. These two series of regressions differ only in the stress test outcomes used to compute the five stressed indicators. For the series of regressions of the *baseline* scenario (*adverse* scenario), the stressed indicators are based solely on the *baseline* scenario outcomes (*adverse* scenario outcomes). Then, in each series, we have eight columns which present the estimates of eight distinct regressions that differ from each other only in the maturity used to calculate the market response (i.e. the dependent variable), following Agbodji *et al.* (2021) suggestions. We obtain the market reaction (at the level of all CDS maturities) by estimating the Cumulative Abnormal CDS spread Returns (CAR). We estimate it using an event study methodology over a four-day event window $(-1,+2)$, the event being the stress test results' disclosure.

As stressed indicators, we have the **Δ CET1 Ratio** which is the Change in common equity tier 1 ratio caused by the simulated scenarios. **Δ Total Risk** is the Change in total risk exposure amount caused by the simulated scenarios, scaled by total assets. **Δ P&L** is the Change in profit and losses caused by the simulated scenarios, scaled by total assets. **Δ Net Int Inc** is the Change in net interest income caused by the simulated scenarios, scaled by total assets. **Δ Accumul Income** is the Change in accumulated other income caused by the simulated scenarios, scaled by total assets. As control variables, we have the **Leverage** which is the Ratio of liabilities to the sum of liabilities and equity. **Size** is the Natural logarithm of bank total assets. **Funding Stability** is the Ratio of deposits to total liabilities. **Asset Quality** is the Ratio of non-performing loans to total assets. **Risk-Free Rate** is the Yield on 10-year government bond. **Economic Environment** is the Country stock market returns. Following Petersen (2009) suggestions and Hasan *et al.* (2014), we use bank fixed effects to account for unobserved time-invariant bank characteristics (that exist and have important explanatory power for the market reactions) and to improve the efficiency of our estimates. Robust standard errors (in parenthesis) are clustered by bank. *, **, *** indicate respectively significance at 10%, 5% and 1% levels.

Table A: Determinants of the market reaction to the disclosure of 1-year time horizon stress test results.

Market reaction		CAR [-1; 2]															
Horizons		1-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		0.643 (2.206)	1.583 (2.124)	1.511 (2.179)	0.906 (1.721)	0.544 (1.492)	0.0108 (1.256)	-0.140 (1.387)	0.0780 (1.310)	1.611 (1.345)	1.736 (1.318)	1.999* (1.054)	1.573 (0.960)	0.152 (0.726)	-0.777 (0.645)	1.281 (0.795)	0.610 (0.822)
ΔTotal Risk		3.092*** (1.134)	3.330*** (1.139)	3.301*** (1.200)	2.773** (1.118)	3.055*** (0.828)	1.790** (0.860)	2.283** (0.959)	2.316** (1.091)	1.057 (0.914)	0.913 (0.964)	0.572 (0.859)	0.349 (0.746)	-0.147 (0.709)	-0.638 (0.817)	-0.255 (0.692)	-0.279 (0.709)
ΔP&L		-9.756** (4.349)	-8.539** (4.215)	-7.802** (3.851)	-5.774 (3.487)	-0.283 (2.046)	1.993 (2.056)	-3.098 (3.224)	-1.903 (3.623)	-6.650* (3.776)	-6.613* (3.678)	-6.088* (3.437)	-4.689 (2.878)	-1.497 (2.459)	0.00540 (2.527)	-2.434 (2.734)	-1.057 (2.715)
ΔNet Int Inc		-11.02** (4.772)	-18.47*** (4.878)	-22.36*** (3.849)	-23.38*** (4.657)	-17.74*** (5.692)	-10.61 (8.008)	-6.232 (5.643)	-12.37** (5.221)	-5.857 (7.454)	-13.02* (7.488)	-16.69** (6.913)	-17.54** (6.635)	-12.71** (6.099)	-10.05 (6.507)	0.123 (6.355)	-6.696 (5.983)
ΔAccumul Income		7.579 (12.97)	9.843 (13.55)	11.58 (14.34)	16.53 (14.31)	6.780 (9.143)	6.375 (7.940)	17.07 (13.62)	15.98 (13.21)	-3.518 (11.33)	0.0494 (10.47)	3.446 (9.322)	4.991 (8.783)	-2.864 (5.146)	-4.608 (4.192)	0.415 (7.636)	0.702 (8.114)
Control Variables																	
Leverage		2.577 (1.834)	3.211* (1.734)	3.482** (1.538)	2.017 (1.304)	2.669** (1.223)	1.609 (1.143)	2.102 (1.369)	1.987 (1.295)	3.033 (1.929)	3.969** (1.636)	4.026** (1.544)	2.942** (1.264)	2.636** (1.240)	1.952 (1.267)	2.054 (1.513)	2.246* (1.331)
Size		0.0804 (0.109)	0.129 (0.102)	0.129 (0.106)	0.108 (0.0898)	-0.0155 (0.0550)	-0.0732 (0.0666)	-0.0256 (0.0695)	0.00256 (0.0802)	0.0415 (0.0955)	0.0745 (0.0838)	0.0527 (0.0840)	0.0390 (0.0716)	-0.0532 (0.0529)	-0.0822 (0.0593)	-0.0942 (0.0592)	-0.0631 (0.0664)
Funding stability		-0.0162 (0.233)	0.0852 (0.223)	0.0742 (0.239)	-0.0480 (0.210)	0.275* (0.162)	0.208 (0.176)	-0.00116 (0.239)	-0.0684 (0.245)	-0.00561 (0.241)	0.00876 (0.226)	-0.111 (0.215)	-0.213 (0.201)	0.0196 (0.138)	-0.0132 (0.152)	-0.148 (0.233)	-0.257 (0.223)
Asset Quality		-1.146** (0.511)	-0.807* (0.482)	-0.817 (0.495)	-0.739 (0.516)	-0.879* (0.522)	-1.021* (0.593)	-0.936 (0.643)	-0.983* (0.571)	-1.137 (0.686)	-0.852 (0.669)	-0.825 (0.687)	-0.724 (0.685)	-1.075* (0.592)	-1.248** (0.569)	-0.706 (0.768)	-1.003 (0.638)
Risk-Free Rate		1.852 (1.885)	0.949 (1.553)	0.188 (1.267)	-1.008 (1.165)	-1.841* (0.992)	-2.757*** (0.989)	-1.287 (1.191)	-1.744* (1.024)	1.436 (2.013)	0.839 (1.889)	-0.0259 (1.594)	-0.906 (1.455)	-1.175 (1.066)	-1.676 (1.035)	-1.675 (1.413)	-1.792 (1.222)
Economic Environment		-0.230 (0.145)	-0.262* (0.141)	-0.202* (0.120)	-0.120 (0.107)	0.0694 (0.0963)	0.207* (0.104)	0.116 (0.0911)	0.0168 (0.0891)	-0.149 (0.0987)	-0.213** (0.0871)	-0.182** (0.0892)	-0.129 (0.0776)	0.0861 (0.0798)	0.210** (0.0852)	0.126* (0.0639)	0.0290 (0.0660)
Constant		-4.520 (3.113)	-6.465** (2.956)	-6.680** (2.814)	-4.687** (2.157)	-2.159 (1.602)	0.415 (1.635)	-1.237 (1.862)	-1.833 (1.925)	-3.931 (3.112)	-5.684** (2.584)	-5.070** (2.364)	-3.638** (1.789)	-1.013 (1.675)	0.411 (1.871)	0.736 (1.871)	-0.216 (1.784)
Joint Significance of Stressed Indicators																	
Wald Test Statistic		5,29***	6,41***	10,73***	9,34***	4,95***	1,32	2,41**	2,56**	2,05*	3,12**	3,44***	3,29**	1,93	1,32	0,69	0,77

Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.304	0.338	0.358	0.371	0.544	0.498	0.318	0.349	0.183	0.220	0.258	0.279	0.468	0.503	0.214	0.256
Adjusted R-squared	0.224	0.260	0.283	0.299	0.491	0.441	0.240	0.275	0.0891	0.129	0.172	0.197	0.407	0.447	0.123	0.172
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.0000	0.0000	0	0	0	0	0.0001	0.0000	0.0460	0.0035	0.0004	0.0003	0	0	0	0.0001
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Table B: Determinants of the market reaction to the disclosure of 2-year time horizon stress test results.

Market reaction		CAR [-1; 2]															
Horizons		2-year Scenario Time Horizon															
Scenarios		Baseline							Adverse								
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		-0.0193 (1.121)	0.572 (1.085)	0.397 (1.076)	0.272 (0.914)	0.0323 (0.806)	-0.162 (0.740)	-0.0673 (0.840)	0.0735 (0.783)	-0.287 (1.238)	-0.155 (1.272)	0.181 (1.168)	0.281 (1.117)	-0.837 (0.684)	-1.277** (0.564)	0.614 (0.846)	0.370 (0.882)
ΔTotal Risk		3.331*** (0.919)	3.439*** (0.903)	3.558*** (0.984)	3.082*** (0.868)	2.426*** (0.598)	1.565** (0.708)	2.213*** (0.764)	2.338*** (0.800)	0.562 (0.997)	0.288 (1.096)	0.475 (1.002)	0.343 (0.849)	-0.326 (0.563)	-0.382 (0.514)	-0.147 (0.694)	-0.0995 (0.728)
ΔP&L		-8.453** (3.573)	-7.642** (3.709)	-7.380** (3.646)	-4.837 (2.889)	-1.623 (1.776)	0.472 (1.777)	-2.515 (2.635)	-0.913 (2.937)	-7.756** (3.783)	-6.177 (3.848)	-5.478 (3.876)	-3.728 (3.229)	-1.024 (2.282)	0.662 (1.960)	-1.961 (2.990)	0.0429 (2.826)
ΔNet Int Inc		-18.66*** (4.552)	-23.34*** (3.909)	-25.43*** (3.689)	-25.37*** (3.879)	-20.93*** (4.652)	-15.39** (6.390)	-10.02* (4.998)	-14.62*** (4.688)	0.831 (10.16)	-5.133 (10.49)	-9.793 (8.750)	-12.23 (7.827)	-12.54** (5.904)	-13.28** (5.329)	0.270 (7.378)	-6.115 (5.539)
ΔAccumul Income		20.21* (11.63)	23.48** (10.93)	25.14** (11.25)	27.97** (11.58)	17.76** (8.512)	13.97 (8.542)	26.39** (11.45)	25.25** (10.23)	-6.385 (12.09)	-2.332 (11.42)	1.563 (10.65)	3.444 (9.810)	-2.070 (5.965)	-2.894 (4.400)	0.215 (7.687)	1.477 (8.101)
Control Variables																	
Leverage		2.238 (1.769)	2.703 (1.687)	2.859* (1.466)	1.446 (1.215)	2.005* (1.161)	1.299 (1.112)	1.676 (1.259)	1.337 (1.181)	2.950 (1.851)	3.566** (1.730)	3.625** (1.762)	2.734** (1.265)	2.888** (1.274)	2.520** (1.103)	2.004 (1.589)	2.128* (1.177)
Size		0.147 (0.105)	0.195** (0.0947)	0.203** (0.1000)	0.173** (0.0782)	0.0454 (0.0497)	-0.0170 (0.0635)	0.0234 (0.0521)	0.0535 (0.0605)	0.0175 (0.104)	0.0344 (0.0949)	0.0395 (0.0879)	0.0305 (0.0762)	-0.0537 (0.0571)	-0.0607 (0.0552)	-0.106* (0.0574)	-0.0670 (0.0595)
Funding stability		0.0258 (0.179)	0.0978 (0.172)	0.114 (0.202)	-0.0210 (0.173)	0.181 (0.135)	0.145 (0.154)	-0.0370 (0.207)	-0.0771 (0.188)	-0.109 (0.249)	-0.0790 (0.248)	-0.122 (0.269)	-0.203 (0.246)	0.0177 (0.189)	0.0531 (0.184)	-0.178 (0.289)	-0.233 (0.279)
Asset Quality		-1.094** (0.525)	-0.804* (0.479)	-0.777 (0.479)	-0.701 (0.476)	-0.887* (0.457)	-1.022* (0.516)	-1.035 (0.655)	-1.001* (0.501)	-1.457** (0.602)	-1.144** (0.563)	-1.018* (0.543)	-0.849 (0.548)	-1.198** (0.487)	-1.291** (0.496)	-0.844 (0.702)	-1.001* (0.566)
Risk-Free Rate		0.977 (1.753)	0.151 (1.383)	-0.542 (1.145)	-1.772* (1.036)	-2.244** (0.970)	-2.948*** (0.974)	-1.891 (1.134)	-2.356** (0.968)	2.338 (2.345)	1.167 (2.102)	0.179 (1.901)	-0.995 (1.694)	-0.916 (1.090)	-1.465 (0.896)	-1.604 (1.316)	-2.090 (1.275)
Economic Environment		-0.186 (0.130)	-0.217* (0.124)	-0.164 (0.108)	-0.0802 (0.0941)	0.0768 (0.0848)	0.192* (0.0988)	0.144 (0.0867)	0.0515 (0.0820)	-0.143 (0.103)	-0.164* (0.0976)	-0.138 (0.0966)	-0.0829 (0.0840)	0.117* (0.0651)	0.216*** (0.0687)	0.141* (0.0707)	0.0546 (0.0626)
Constant		-5.993* (3.230)	-7.732** (3.071)	-8.095** (3.107)	-5.903*** (2.171)	-3.114* (1.578)	-0.766 (1.604)	-2.118 (1.780)	-2.579 (1.753)	-3.189 (3.196)	-4.206 (2.845)	-4.358 (2.847)	-3.235 (2.117)	-1.262 (1.895)	-0.760 (1.712)	1.108 (2.106)	-0.00807 (1.570)
Joint Significance of Stressed Indicators																	
Wald Test Statistic		6,41***	10,33***	11,81***	12,07***	9,91***	2,19*	3,05**	4,78***	1,19	1,12	1,6	1,94	2,29*	2,49**	0,48	0,46

Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.318	0.362	0.391	0.401	0.581	0.530	0.343	0.380	0.171	0.174	0.207	0.240	0.499	0.553	0.201	0.252
Adjusted R-squared	0.240	0.288	0.319	0.333	0.532	0.477	0.267	0.310	0.0762	0.0772	0.114	0.154	0.441	0.503	0.108	0.167
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.0000	0	0	0	0	0	0.0017	0.0001	0.0172	0.0152	0.0015	0.0012	0	0	0.0000	0.0034
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.

Table C: Determinants of the market reaction to the disclosure of 3-year time horizon stress test results.

Market reaction		CAR [-1; 2]															
Horizons		3-year Scenario Time Horizon															
Scenarios		Baseline								Adverse							
Maturity		6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	7-Year	10-Year
Stressed Indicators																	
ΔCET1 Ratio		0.140 (0.790)	0.513 (0.782)	0.381 (0.775)	0.420 (0.684)	0.195 (0.596)	0.0682 (0.576)	0.327 (0.576)	0.343 (0.601)	-0.325 (0.984)	-0.329 (0.998)	-0.428 (0.991)	-0.296 (0.967)	-0.989 (0.626)	-1.178** (0.556)	-0.146 (0.832)	-0.159 (0.799)
ΔTotal Risk		2.802*** (0.856)	2.939*** (0.858)	2.949*** (0.904)	2.565*** (0.805)	1.840*** (0.611)	1.146* (0.649)	1.562** (0.757)	1.808** (0.759)	-0.0865 (0.709)	-0.353 (0.777)	-0.211 (0.737)	-0.253 (0.606)	-0.246 (0.400)	-0.0140 (0.366)	-0.286 (0.438)	-0.167 (0.508)
ΔP&L		-7.855** (3.553)	-6.955* (3.789)	-7.014* (3.645)	-4.724 (3.068)	-1.416 (2.082)	0.294 (2.152)	-3.126 (2.757)	-1.182 (2.974)	-8.340** (4.077)	-7.012 (4.351)	-6.571 (4.214)	-5.089 (3.721)	-1.787 (2.668)	-0.0314 (2.408)	-5.446* (3.183)	-2.807 (3.140)
ΔNet Int Inc		-12.59*** (4.145)	-17.35*** (5.356)	-17.14*** (5.551)	-15.95** (6.221)	-15.09*** (5.154)	-11.56* (6.047)	-5.687 (5.301)	-10.91** (4.841)	7.323 (11.27)	1.627 (11.73)	-2.611 (10.26)	-4.336 (9.439)	-8.393 (7.161)	-10.02 (6.228)	5.977 (7.716)	-1.424 (6.786)
ΔAccumul Income		18.40 (11.97)	21.67* (11.07)	24.33** (11.93)	25.62** (12.21)	16.95* (8.469)	12.50 (8.199)	24.13* (12.20)	23.24** (11.28)	-8.968 (11.64)	-4.119 (10.93)	0.284 (10.49)	2.216 (9.602)	-2.452 (6.277)	-2.863 (4.527)	-0.397 (7.603)	1.607 (8.151)
Control Variables																	
Leverage		1.938 (1.756)	2.496 (1.675)	2.197 (1.635)	1.192 (1.286)	1.578 (1.216)	1.239 (1.143)	1.557 (1.280)	1.278 (1.189)	2.249 (1.872)	3.027* (1.696)	3.155* (1.871)	2.403* (1.377)	3.013* (1.545)	2.686** (1.218)	1.996 (1.599)	2.316* (1.188)
Size		0.126 (0.106)	0.165* (0.0961)	0.170* (0.0998)	0.136* (0.0787)	0.0122 (0.0484)	-0.0406 (0.0605)	-0.00117 (0.0538)	0.0290 (0.0608)	-0.00206 (0.103)	0.00504 (0.0956)	0.00739 (0.0898)	-0.00441 (0.0747)	-0.0594 (0.0491)	-0.0557 (0.0461)	-0.0940* (0.0556)	-0.0657 (0.0610)
Funding stability		-0.0280 (0.176)	0.0552 (0.164)	0.0515 (0.180)	-0.0743 (0.158)	0.126 (0.142)	0.107 (0.161)	-0.122 (0.201)	-0.137 (0.182)	-0.181 (0.262)	-0.148 (0.278)	-0.210 (0.291)	-0.283 (0.276)	0.0338 (0.220)	0.0890 (0.195)	-0.240 (0.307)	-0.296 (0.295)
Asset Quality		-1.108* (0.572)	-0.829 (0.521)	-0.791 (0.501)	-0.725 (0.498)	-0.940** (0.463)	-1.068** (0.513)	-1.071 (0.667)	-1.052** (0.504)	-1.374** (0.648)	-1.093* (0.596)	-1.004* (0.582)	-0.852 (0.591)	-1.120** (0.523)	-1.164** (0.526)	-0.730 (0.686)	-0.979 (0.594)
Risk-Free Rate		0.893 (1.788)	0.119 (1.444)	-0.524 (1.227)	-1.626 (1.117)	-2.158** (1.029)	-2.800*** (1.025)	-1.667 (1.177)	-2.179** (1.037)	2.031 (1.901)	1.038 (1.690)	0.311 (1.642)	-0.762 (1.478)	-0.959 (1.093)	-1.635* (0.959)	-0.777 (1.153)	-1.461 (1.222)
Economic Environment		-0.130 (0.126)	-0.160 (0.122)	-0.104 (0.106)	-0.0355 (0.0958)	0.116 (0.0870)	0.211** (0.0961)	0.157* (0.0863)	0.0706 (0.0813)	-0.102 (0.103)	-0.127 (0.0976)	-0.0939 (0.0888)	-0.0475 (0.0803)	0.130* (0.0657)	0.216*** (0.0747)	0.111 (0.0754)	0.0268 (0.0660)
Constant		-5.123 (3.206)	-6.734** (2.941)	-6.584** (2.869)	-4.676** (2.017)	-1.806 (1.456)	-0.0627 (1.521)	-1.316 (1.811)	-1.844 (1.715)	-1.958 (3.293)	-2.874 (3.055)	-3.027 (3.255)	-1.961 (2.345)	-1.251 (2.093)	-1.083 (1.628)	0.793 (2.181)	-0.215 (1.788)
Joint Significance of Stressed Indicators																	
Wald Test Statistic		4,66***	4,73***	4,23***	3,68***	4,47***	1,51	1,82	2,63**	1,15	1	1,34	1,39	1,47	1,75	0,88*	0,43

Observations	108	106	106	109	107	109	107	109	108	106	106	109	107	109	107	109
R-squared	0.289	0.329	0.349	0.348	0.540	0.512	0.313	0.358	0.174	0.168	0.186	0.207	0.483	0.537	0.225	0.250
Adjusted R-squared	0.208	0.251	0.273	0.274	0.487	0.457	0.233	0.285	0.0791	0.0709	0.0904	0.117	0.423	0.485	0.135	0.165
Number of Banks	53	52	53	53	53	53	53	53	53	52	53	53	53	53	53	53
Prob. > F	0.0002	0.0000	0.0000	0.0031	0.0000	0	0.0159	0.0087	0.0021	0.0123	0.0003	0.0036	0.0000	0	0.0028	0.0630
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank

Source: Authors' calculation.