

Review of the 2017 SREP results

Banking Union Scrutiny

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Abstract

This paper reviews the 2017 SREP results with a view to assessing their capital market implications and seeing whether the information provision about the SREP results could be improved. Aggregated SREP information as published by the ECB can be useful in detecting trends in banks' conditions, but it cannot be meaningfully applied to assess capital market reactions to the SREP results. Bank-level SREP disclosures are voluntary, and therefore are expected to be biased towards news that is favorable to investors in securities. Consistent with this, we find that bank stock returns on average are positive on SREP disclosure days.

Overall, the 2017 SREP information that is in the public domain is insufficient to evaluate the efficacy of the SREP as conducted by the ECB in terms of improving the regulatory and market discipline of banks. The publication of full bank-level SREP information (by either the ECB or the individual banks) would facilitate such an evaluation, but full disclosure is undesirable as it exposes the banks with the weakest supervisory reviews to potentially very severe market discipline. However, the ECB could improve the information provision about the SREP by requiring banks that choose to reveal any capital regulatory information to disclose a complete breakdown of their CET1 demand to improve data comparability across banks and hence potentially market discipline.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.



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Manuscript completed in March 2018
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EXECUTIVE SUMMARY

The European Central Bank (ECB) performs an annual Supervisory Review and Evaluation Process (SREP) for the directly supervised banks, yielding bank-specific capital regulatory demands that are meant to reflect a bank's riskiness. Appropriate capital regulatory decisions by the ECB stemming from the SREP are vital to safeguarding financial stability in the euro zone. This paper reviews available information about the 2017 SREP results with a view to assessing their capital market implications and seeing whether the information provision about the SREP results could be improved.

The ECB's communication about the SREP to the general public is limited to the annual publication of a document called 'SSM SREP methodology booklet' that summarizes some information about the SREP results at an aggregate level. Aggregated SREP information can be useful in detecting any trends in banks' conditions, but it cannot be meaningfully applied to assess capital market reactions to the SREP results.

The ECB neither prevents nor dissuades institutions from disclosing their CET1 demand as relevant for the determination of limits on the distribution of earnings to shareholders. In the 2017 SREP round, 28 banks are identified as having disclosed information on their regulatory CET1 demand by way of a press release. This corresponds to about a quarter of the 119 banks that were directly supervised by the ECB as of December 5, 2017. Larger banks are found to be more likely to disclose their regulatory CET1 demand, perhaps because they are under more intense pressure to reveal their SREP outcome to ward off potential insider trading based on this information.

Bank-level SREP disclosures are voluntary, and therefore are expected to be biased towards news that is favorable to investors in bank securities. Consistent with this, we find that bank stock returns on average are positive on SREP disclosure days, although the average return is not statistically different from zero.

Overall, the 2017 SREP information that is in the public domain is insufficient to evaluate the efficacy of the SREP as conducted by the ECB in terms of improving the regulatory and market discipline of banks. The publication of full bank-level SREP information (by either the ECB or the individual banks) would facilitate such an evaluation, but full disclosure is undesirable as it exposes the banks with the weakest supervisory reviews to potentially severe market discipline, which could induce instant bank failure. However, the ECB could improve the information provision about the SREP by requiring banks that choose to reveal any capital regulatory information to disclose a complete breakdown of their CET1 demand to improve data comparability across banks and hence potentially market discipline. Furthermore, the ECB itself could usefully undertake empirical research with confidential SREP data to evaluate the value added of the current SREP procedure.

1. INTRODUCTION

The Basel II accords introduced the Supervisory Review Process as a vehicle for bank supervisors to assess banks' risks and to translate their findings into supervisory decisions, including bank capital requirements (Basel Committee, 2006). Bank supervisors, in particular, were authorized to require banks to hold additional capital (so-called Pillar 2 capital) to cover bank-specific risks that are not adequately accounted for by the legal minimum capital requirement that applies to all banks (the Pillar 1 capital requirement).

Since 2014, the European Central Bank (ECB) performs a Supervisory Review and Evaluation Process (SREP) for the directly supervised banks. By now the ECB has completed SREPs in 2015, 2016, and 2017 applying a uniform approach to all the banks. In each SREP round, the ECB sets the capital demands that apply to the affected banks from January 1 of the subsequent year. Appropriate capital regulatory decisions by the ECB stemming from the SREP are vital to safeguarding financial stability in the euro zone. This paper reviews available information about the 2017 SREP results with a view to assessing their capital market implications and seeing whether the information provision about the SREP results can be improved.

The ECB's communication about the SREP to the general public is limited to the annual publication of a document called 'SSM SREP methodology booklet' (see ECB, 2015, 2016, and 2017b). This document explains the procedures that the ECB follows in carrying out the SREP, and it summarizes some information about SREP decisions at an aggregate level. In 2015, the information provided by the ECB was limited to the required overall Common Equity Tier 1 (CET1) ratio. Since 2016, the ECB also provides aggregated information about the various components of overall CET1 demand, and about the distribution of the risk scores that it uses as inputs into capital regulatory decisions.

The ECB neither prevents nor dissuades institutions from disclosing their CET1 demand as relevant for the determination of limits on the distribution of earnings to shareholders. In the 2017 SREP round, 28 banks are identified as having disclosed information on their regulatory CET1 demand by way of a press release. This corresponds to about a quarter of the 119 banks that were directly supervised by the ECB as of December 5, 2017. Larger banks are found to be more likely to disclose their regulatory CET1 demand, perhaps because they are under more intense pressure to reveal their SREP outcome to ward off potential insider trading based on this information.

Bank-level SREP disclosures are voluntary, and therefore are likely to be biased towards news that is favorable to investors in bank securities. Consistent with this, we find that bank stock returns on average are positive on SREP disclosure days, although the average return is not statistically different from zero. Similarly, we do not find that bank stock returns on SREP disclosure days are correlated with revealed CET1 demands with statistical significance.

Overall, the 2017 SREP information that is in the public domain is insufficient to evaluate the efficacy of the SREP as conducted by the ECB in terms of improving the regulatory and market discipline of banks. The publication of full bank-level SREP information (by either the ECB or the individual banks) would facilitate such an evaluation, but full disclosure is undesirable as it exposes the banks with the weakest supervisory reviews to potentially very severe market discipline, which could induce instant bank failure. However, the ECB could improve the information provision about the SREP by requiring banks that choose to reveal any capital regulatory information to disclose a complete breakdown of their CET1 demand to improve data comparability across banks and hence potentially market discipline. Furthermore, the ECB itself could usefully undertake empirical research with confidential SREP data to evaluate the value added of the current SREP procedure.

In the remainder, section 2 provides a short description of the SREP. Section 3 reviews the information that the ECB has published about the 2017 SREP. Section 4 discusses the SREP information that individual banks have disclosed, and it analyzes stock market reactions to the SREP disclosures. Section 5 points out how SREP information that is not in the public domain can be used to evaluate the value added of the SREP. Section 6 concludes.

2. THE SREP ASSESSES BANK RISKS AND SETS CAPITAL REQUIREMENTS

The SREP is an annual supervisory procedure for assessing a bank's riskiness and setting commensurate bank-level capital requirements. The ECB carries out the SREP for the 119 banks that it directly supervises as of December 5 2017 (see ECB, 2017a), following the SREP guidelines formulated by the European Banking Authority (EBA, 2014). Risks are evaluated and scored in four main areas: i) business model sustainability, ii) internal risk governance, iii) capital risk, and iv) liquidity risk. In each risk area, a risk score is formulated that ranges from 1 to 4, with a higher score signaling more risk. In addition, banks receive an overall SREP score that summarizes the supervisor's view of the bank's overall viability that is also on a scale from 1 to 4.¹

Risk assessments serve as inputs into setting bank-level capital requirements. The primary capital requirement is the overall CET1 demand (expressed as CET1 relative to risk-weighted assets), which reflects the bank's loss-absorption capacity as a going concern. The overall CET1 demand is the sum of a range of components. First, there is a minimum Pillar 1 capital requirement of 4.5% that applies to all banks. Second, there are the buffer requirements that were introduced as part of Basel III. Specifically, these are the Capital conservation buffer, the Countercyclical buffer and the Systemic buffers. The Capital conservation buffer is the same for all banks, the Countercyclical buffer varies across banks but is calculated according to a set formula, while the Systemic buffers are to some extent at the discretion of the supervisor partly within pre-determined ranges.² Finally, there is a discretionary Pillar 2 capital demand that in principle should reflect bank-specific risks that are not adequately covered by the Pillar 1 requirement and the buffers. Since 2016, the Pillar 2 CET1 demand has two components: a Pillar 2 requirement, and an additional Pillar 2 guidance that is meant to reflect the extra capital that a banks needs to be able to continue to operate in stressed conditions as revealed by stress tests. The Pillar 2 guidance, unlike the other CET1 demand components, is not legally binding, but all the same the ECB expects banks to satisfy the Pillar 2 guidance requirement.³

¹ In addition, banks can receive a score of F if they are failing or likely to fail.

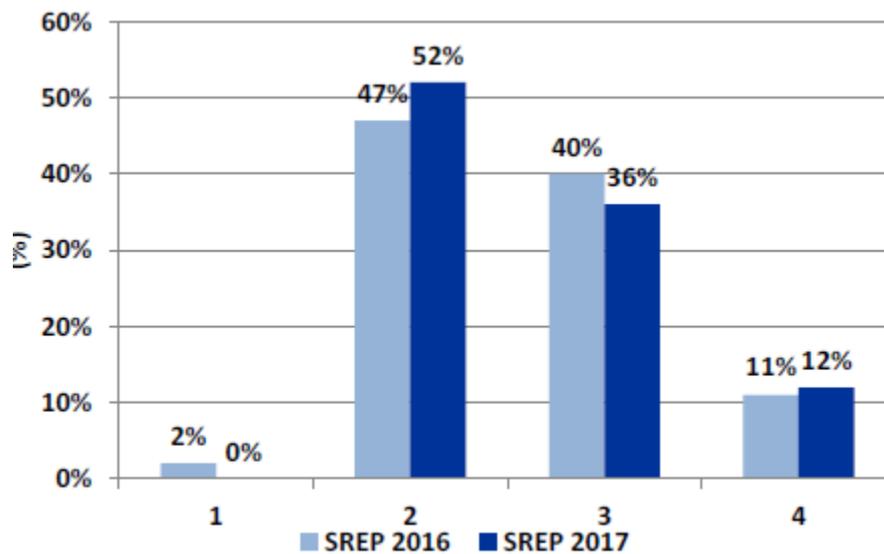
² See Articles 129, 130, and 131 of the Capital Regulations Directive (CRD) IV (European Commission, 2013).

³ See the EBA Pillar 2 roadmap (EBA, 2017, p. 3) for a formulation of key features of the Pillar 2 guidance.

3. INFORMATION ON 2017 SREP RESULTS PROVIDED BY THE ECB

The ECB (2017b) publishes information on the risk scores and CET1 demands of directly supervised bank in aggregated form. Figure 1 gives the distribution of the overall risk scores of these banks in 2017 in comparison to 2016. The figure shows that in 2017 relatively many banks received an overall risk score of 2, while the average overall risk score has stayed constant at 2.60.⁴

Figure 1: Overall SREP 2016 vs. overall SREP 2017

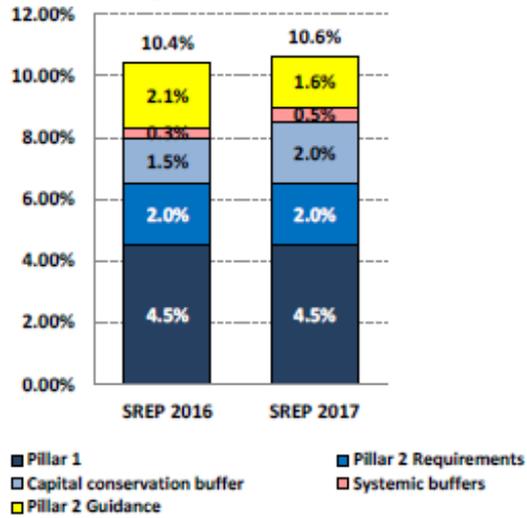


This figure displays the distributions of the overall SREP scores in 2016 and 2017. A higher score signals more risk. Source: ECB (2017b, p. 4)

These risk assessments serve as inputs into the determination of capital requirements. As seen in Figure 2, the average CET1 demand in the 2017 SREP was 10.6%, slightly more than 10.4% in the previous year. In the 2017 SREP, the breakdown of the average CET1 into its components was as follows: i) a Pillar 1 requirement of 4.5%, ii) an average Pillar 2 requirement of 2.0%, iii) an average Capital conservation buffer of 2.0%, iv) an average Systemic buffer of 0.5%, and v) an average Pillar 2 guidance of 1.6%. The ECB does not report an average Countercyclical buffer for either 2016 or 2017, perhaps because this was included in one of the other categories or rounded to zero.

⁴ The ECB (2017b, pp. 9-10) also provides aggregate information on the scores for the four individual risk areas.

Figure 2: Average CET1 demand in 2016 and 2017



Source: ECB (2017b, p. 5).

To show that CET1 demands tend to reflect bank risks, the ECB provides Figure 3 which displays a positive correlation between overall risk scores and CET1 demands in both 2016 and 2017.

Figure 3: SREP CET1 demand by overall SREP score



This figure displays average SREP CET1 demand by overall SREP score in 2016 and 2017. SREP CET1 demand includes Pillar 1 requirement, Pillar 2 requirement, Capital conservation buffer, and Pillar 2 guidance. A higher score signals more risk. Source: ECB (2017b, p. 6).

Beyond capital requirements, the ECB (2017b, p. 7) reports that 39 banks were confronted with qualitative or quantitative liquidity measures in the 2017 SREP, while 84 banks faced other qualitative supervisory measures related to issues such as nonperforming loans, internal governance, and operational risk.

Aggregated SREP information as published by the ECB is useful in detecting any trends in banks' conditions, but it cannot be meaningfully applied to assess capital market reactions to the SREP results.

4. THE 2017 SREP RESULTS DISCLOSED BY THE BANKS

In line with EBA (2015), the ECB (2017b, p. 31) neither prevents nor dissuades institutions from disclosing the components of the CET1 demand that are relevant for determining limits on the distribution of earnings to shareholders (these are the Pillar 1 requirement, the various buffers, and the Pillar 2 requirement).⁵

This section analyzes the 2017 SREP information that directly supervised banks have voluntarily disclosed through a press release.⁶ Subsection 4.1 discusses the incentives that banks face to reveal private supervisory information such as the SREP outcome. Subsection 4.2 indicates which banks have chosen to disclose their 2017 CET1 demand. Subsection 4.3 examines whether a bank's disclosure choice can be predicted on the basis of bank size and condition. Subsection 4.4 summarizes the disclosed information on the components of CET1 demand. Finally, subsection 4.5 analyzes the share price reactions to banks' 2017 SREP disclosures.

4.1 Bank incentives to disclose private supervisory information

In this subsection, we consider the incentives that banks face to disclose private supervisory information, and in particular why in practice some but not all banks choose to reveal such information.⁷

A bank that receives a low supervisory CET1 demand has the incentive to reveal this information to financial markets, if it thinks it will be rewarded by a higher share price and lower funding costs. Following the logic of Grossman and Hart (1980), one would expect a full disclosure equilibrium to arise where all firms voluntarily disclose their CET1 demand to financial markets. Analyzing a model in which firms vary by product quality, these authors find that the firm with the highest quality has the incentive to reveal its product quality to set itself apart from its lower-quality competitors. Subsequently, the firm with the next-highest quality will do the same. This process of disclosure continues until in equilibrium all firms have voluntarily disclosed their product quality.

In practice, some but not all banks disclose their CET1 demand as a signal of bank quality to financial markets. Thus, the logic of the full disclosure model apparently does not apply to banks and their private SREP information. One way to explain this is to assume that some bank stock investors are unsophisticated in the sense that they do not interpret the failure of a bank to reveal its private SREP information as an admission of a relatively unfavorable SREP outcome. In this scenario, the logic of complete disclosure by all banks may not apply, as at some point the bank with the best undisclosed (but not so favorable) information may decide to withhold this information, as unsophisticated

⁵ The EBA (2015, p. 6) states that 'Competent Authorities should consider using the provisions of Article 438 (b) of the CRR to require institutions to disclose -relevant capital requirements [...], or should at least not prevent or dissuade any institution from disclosing this information'. In addition, the EBA (2017, p. 5) states that competent authorities under the CRD do not have the legal powers to actively prevent institutions from disclosing Pillar 2 guidance.

⁶ Resti (2018) finds that many directly supervised banks communicate their SREP results through financial reports, documents such as Pillar 3 reports, and presentations to investors rather than through ad hoc press releases. Overall, roughly two thirds of institutions have communicated some 2017 SREP results to the public. This paper focuses on SREP disclosures through ad hoc press releases to be able to ascertain their impact on bank share prices.

⁷ Berlin (2004) provides a survey of the literature on the mandatory and voluntary disclosure of information by banks. Leitner (2014) addresses the question of whether supervisory information about banks should be made public.

investors could – irrationally – interpret disclosure of this information as a negative rather than as a positive signal of bank quality. In this setting, partial disclosure of SREP information by only some banks can be an equilibrium outcome.

Partial disclosure of SREP information by some banks – whatever its true cause – should be seen as a blessing in disguise, as it shields the banks with the most negative SREP news from instantly revealing this to financial markets, which could lead to a cutoff of market funding and unwarranted bank failure.

4.2 Banks that disclosed 2017 SREP information

From bank web sites, 28 Single Supervisory Mechanism (SSM) banks are identified as having issued a press release on the 2017 SREP outcome. The names of these banks are listed in Table A1 in the Appendix. Table 1 gives the number of disclosing banks per euro area country, and it indicates the number of disclosing bank as a share of directly supervised banks in that country. From the table, we see that there are four euro area countries where at least half of the directly supervised banks disclose SREP information through a press release: France, Italy, the Netherlands, and Portugal. Among these countries, the Netherlands stands out with 5 out of 6 banks releasing SREP information. The concentration of disclosing banks in some countries suggests that in these countries banks aim to avoid the stigma of not releasing SREP information given the inclination of other banks in the same country to do this.

Table 1. Disclosing banks relative to SSM banks per country

Country	Number of disclosing banks	Number of SSM banks	Disclosing banks / SSM banks
Austria	0	7	0
Belgium	1	7	0.14
Cyprus	0	4	0
Estonia	0	2	0
Finland	1	4	0.25
France	6	12	0.5
Germany	1	21	0.05
Greece	0	4	0
Ireland	0	5	0
Italy	7	12	0.58
Latvia	0	3	0
Lithuania	0	3	0
Luxembourg	0	4	0
Malta	0	3	0
Netherlands	5	6	0.83
Portugal	2	3	0.67
Slovakia	0	3	0
Slovenia	0	3	0
Spain	5	13	0.38
Total	28	119	0.24

Sources: Bank web sites and ECB (2017a)

4.3 The determinants of the disclosure decision

As discussed in subsection 4.1, banks that receive relatively favorable SREP news from the supervisor have the greatest incentive to disclose this information to financial markets. As the news component

of the SREP results is unpredictable, this suggests that a bank's decision to disclose SREP information as prompted by such news is also unpredictable.

Abstracting from any new SREP information about bank condition, in this subsection we consider whether a bank's SREP disclosure by way of a press release can be predicted by its previously known condition. To examine this, we estimate a logit probability model of the 2017 SREP disclosure decision on the basis of three bank-level variables constructed with 2016 data: i) Assets, which is the logarithm of total assets, as an index of bank size, ii) ROA, which is the bank's return on assets calculated as net income over total assets, and iii) Impairment, which is the ratio of impaired loans to total assets.⁸ The estimation results are reported in Table 2. Column 1 shows the result of a regression that relates the disclosure decision only to the Assets variable, yielding a positive and significant estimated coefficient. This indicates that larger banks are more likely to disclose their SREP outcome. One potential reason for this is that larger banks may be relatively more interested in revealing their SREP outcome to prevent insider trading based on this information. Columns 2 and 3 show regressions that relate the disclosure decision to the ROA and Impairment variables, respectively, yielding negative but insignificant coefficients. The disclosure decision thus cannot be explained by these key indices of the bank's current condition. The regression in column 4 includes all three explanatory variables and confirms a positive and statistically significant relationship between bank size and SREP disclosure.

Table 2. The determinants of 2017 SREP disclosure by banks

	(1)	(2)	(3)	(4)
Assets	1.25***			1.38***
ROA		-37.48		11.39
Impaired			-6.14	-1.16
No obs	97	96	85	85

This table shows the results of estimating a logit probability model. The dependent variable is a dummy variable indicating that a bank has disclosed some 2017 SREP information. A constant is included but not reported. *** denotes significance at 1%.

4.4 The disclosed capital demand items

The 28 disclosing banks on average report a CET1 demand (net of the Pillar 2 guidance) of 8.81%.⁹ This is slightly less than the corresponding figure of 9% that the ECB reports for the overall sample of SSM banks as seen in Figure 2, consistent with the notion that banks with relatively favorable SREP outcomes have greater incentives to disclose this information.

Only 22 banks provide details not only on their overall CET1 demand (net of Pillar 2 guidance), but also on its exact composition. Table 3 shows that this smaller set of banks has a lower average overall CET1 demand of 8.68%. In addition to a Pillar 1 capital demand of 4.5%, these banks face average Pillar 2 requirements and Capital conservation buffer requirements of 1.77% and 1.88%, respectively, which are less than the corresponding average requirements of 2.0% for both items in the overall SSM sample as reported by the ECB. In addition, these 22 banks face an average Countercyclical buffer requirement of 0.02% (the corresponding figure for the average SSM bank is not available). Finally, the average Systemic buffer is 0.51% for the self-reporting banks, and is comparable to the average Systemic buffer

⁸ Bank accounting data are from Bankscope, Orbis Bank Focus, and bank annual reports.

⁹ Only two banks disclose their Pillar 2 guidance. No bank discloses information about risk scores.

of 0.5% in the entire SSM sample. Overall, these data show that disclosing banks report relatively low combined CET1 demand as well as Pillar 2 requirements compared to the SSM sample consistent with the notion that banks with more favorable information have a higher incentive to reveal this information.

Table 3. Summary statistics on disclosed capital demand items

	Mean	Standard deviation	Min	Max
Pillar 1	4.5	0	4.5	4.5
Pillar 2 requirement	1.773	0.523	0.75	2.75
Capital conservation buffer	1.875	0	1.875	1.875
Countercyclical buffer	0.020	0.056	0	0.25
Systemic buffers	0.514	0.646	0	2.25
CET1	8.683	0.865	7.125	10.65

Data are for 22 banks that disclose all items.

Table 4 provides the correlation coefficients among the combined overall CET1 demand and its various components. The Pillar 1 requirement and Capital conservation buffer are excluded from this table as they are invariant. The Pillar 2 requirement has low correlations of 0.03 and 0.16 with the Countercyclical and Systemic buffers, respectively, which suggests that the Pillar 2 requirement reflects a separate set of bank risks. The correlations of the Pillar 2 requirement and Systemic buffers with the overall CET1 demand are 0.71 and 0.84, respectively, which indicates that these buffers are important in explaining the variation in the overall CET1 demand.

Table 4. Correlations among capital demand items

	Pillar 2 requirement	Countercyclical buffer	Systemic buffers	CET1
Pillar 2 requirements	1			
Countercyclical buffer	0.03	1		
Systemic buffers	0.16	0.51	1	
CET1	0.71***	0.43	0.84***	1

Data are for 28 disclosing banks. *** denotes significance at 1%.

4.5 Bank share price reactions to 2017 SREP disclosures

Banks have an incentive to reveal private SREP information especially if they think this information will be well received by financial markets. For this reason, one expects that the share price reactions to the voluntary disclosures of SREP information on average will be positive. The bias towards the disclosure of positive news complicates the inference of the relationship between the share price reaction and the pieces of information that are disclosed such as the overall CET1 demand.

Abstracting from the bias towards positive SREP news, bank stock investors could react positively or negatively to an unexpectedly high supervisory CET1 demand. On the positive side, a higher CET1 demand can be interpreted as a signal of higher bank risk, which bank stock investors may value per se. On the negative side, a higher supervisory perception of bank risk may be thought to prompt supervisory action to curb this risk or it may imply a need for the bank to raise additional capital through new share issuance or retained earnings. Thus, a priori it is not clear how bank stock investors will react to news of a relatively high CET1 demand.

To investigate banks' share price reaction to their 2017 SREP disclosures, we consider the subset of 20 disclosing SSM banks that have a stock market listing. As measures of the share price reaction, we

consider the one-day and three-day excess returns of the bank stock relative to the STOXX Europe Banks Index. As indicated in Table 5, these one-day and three-day excess returns on average were 0.53% and 0.17%, respectively.¹⁰ The positive signs of these average excess returns is consistent with the idea that the voluntary disclosure of 2017 SREP information is biased towards positive news. These mean excess returns, however, fail to be statistically different from zero, which reflects the small size of the sample and the considerable variation in the excess return data.

Table 5. Excess stock market returns around disclosure days

	Excess return one day	Excess return three days
Mean	0.53	0.17

Excess returns are calculated as a bank's stock return minus the return on the STOXX Europe Banks Index. The one day excess return is on the day of the press release. The excess return over three days the return between two days before and one day after the press release. Data are for 20 disclosing banks with a stock market listing.

Table 6 provides information about the correlations among the one-day and three-day excess returns, and the overall CET1 demands and its components. The three-day excess return is seen to be negatively correlated with the overall CET1 demand as well as with the Pillar 2 requirement, the Countercyclical buffer and the Systemic buffer. These findings suggest that announcements of higher CET1 requirements are valued negatively by bank stock investors. These various correlations, however, are not significantly different from zero.¹¹

Table 6. Correlations among excess returns and capital demand items

	Excess return one day	Excess return three days
Excess return three days	0.68***	
Pillar 2	0.31	-0.14
Countercyclical buffer	-0.33	-0.10
Systemic buffers	-0.31	-0.32
CET1	-0.13	-0.30

Excess returns are calculated as a bank's stock return minus the return on the STOXX Europe Banks Index. Pillar 1 and capital conservation buffer are constant for disclosing banks. Data are for 20 disclosing banks with a stock market listing. *** denotes significance at 1%.

Overall, the evidence of this subsection indicates that the available data are too limited to be able to conclude with confidence whether share price reactions to 2017 SREP disclosures on average are positive, and how the share price reactions correlate with the disclosed CET1 demand items

¹⁰ The lower three-day average excess return suggests that initially bank stock investors overreact positively to the disclosure of SREP information.

¹¹ Analogous event study regressions also yield insignificant coefficients.

5. THE EFFECTIVENESS OF THE SREP CAN BE EVALUATED WITH CONFIDENTIAL SREP DATA

The publicly available SREP data - in aggregate and bank-level form - are insufficient to conclude whether the SREP creates value added by way of improved regulatory and market discipline of banks.

Short of the publication of additional bank-level SREP data, the effectiveness of the SREP can only be adequately assessed by researchers that have access to the full confidential SREP information, i.e. by researchers associated with the ECB. As the ECB has now concluded three SREP rounds using a unified approach for all directly supervised banks, sufficient data should at present be available to meaningfully evaluate the SREP.

Research along these lines can be analogous to a significant literature that has addressed the efficacy of the confidential CAMELS ratings (standing for Capital Adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity) that US regulatory authorities assign to US banks. In his survey of this literature, Lopez (1999) concludes that CAMELS ratings have been useful to bank regulators, as they correlate with future bank failure. Also, CAMELS ratings potentially improve the market discipline of banks, as they contain supervisory information on banks beyond publicly available information that helps to explain bank bond yields.¹² Similarly, it will be useful to know whether the private supervisory information contained in the SREP has explanatory power beyond publicly available information in explaining and preventing bank distress, and in explaining a bank's cost of funds (which would suggest that this information after some time seeps into the public domain).

¹² Berger, Davies, and Flannery (2000) compare the timeliness and accuracy of confidential government assessments of bank condition against market evaluations of large US bank holding companies. In a similar vein, Deyoung, Flannery, Lang, and Sorescu (2001) evaluate the information content of bank exam ratings and subordinated debt prices.

6. CONCLUSIONS

The ECB's communication about the SREP to the general public is limited to the annual publication of a document called 'SSM SREP methodology booklet' that summarizes some information about the SREP results at an aggregate level. Aggregated SREP information can be useful in detecting any trends in banks' conditions, but it cannot be meaningfully applied to assess capital market reactions to the SREP results.

Bank-level SREP disclosures are voluntary, and therefore are expected to be biased towards news that is favorable to investors in bank securities. Consistent with this, we find that bank stock returns on average are positive on SREP disclosure days, although the average return is not statistically different from zero.

The publicly available SREP data are insufficient to conclude whether the SREP creates value added by way of improved regulatory and market discipline of banks. To remedy this situation, the answer is not to require all banks to disclose SREP information as the release of very negative supervisory information could trigger a strongly adverse capital market reaction, which would preclude a distressed bank from addressing its problems. However, the supervisor could require banks that opt to release SREP information to disclose the overall composition of their CET1 demand including the Pillar 2 guidance to improve data comparability and potentially market discipline. Furthermore, the ECB itself could undertake empirical research with confidential SREP data to evaluate the value added of the current SREP procedure.

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Annex A: Bank That Disclose 2017 SREP Information

Table A1. Banks that disclosure some 2017 SREP information

Country	Bank
Belgium	KBC Group
Finland	Kuntarahoitus Oyj
France	BNP Paribas BPCE HSBC France La Banque Postale Crédit Agricole Société Générale
Germany	Deutsche Bank
Italy	BPER Banca Banca Popolare di Sondrio Banco BPM Credito Emiliano Holding Intesa Sanpaolo UniCredit Unione di Banche Italiane
Netherlands	ABN AMRO Bank Nederlandse Gemeenten Coöperatieve Rabobank ING Nederlandse Waterschapsbank
Portugal	Banco Comercial Português Caixa Geral de Depósitos
Spain	Banco Bilbao Vizcaya Argentaria Banco Santander Bankinter CaixaBank Unicaja Banco

Sources: Bank web sites

This document was provided by the Economic Governance Support Unit at the request of the ECON Committee.

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PE 614.505

Print ISBN 978-92-846-2710-3 | doi:10.2861/736950 | QA-01-18-251-EN-C

PDF ISBN 978-92-846-2711-0 | doi:10.2861/265059 | QA-01-18-251-EN-N