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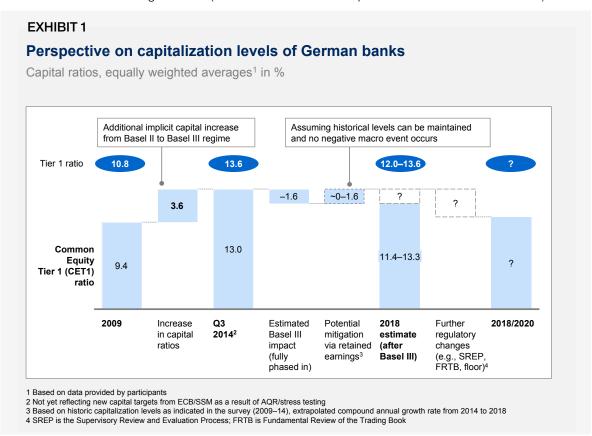
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Executive Summary

Banks in Germany have been increasing their capitalization and improving their capital-management practices to meet the challenge of increasing capital requirements, according to McKinsey & Company's fourth biennial Capital Management Survey. The survey gathered data from 15 German banks, including privately held institutions and Landesbanks, together accounting for approximately 50 percent of the total assets in the German banking industry, excluding Sparkassen and cooperatives. The results demonstrate the effort taken by German banks over the past years to improve their capital positions and management but also point out upcoming challenges and concerns with regard to future regulatory changes.

The survey has produced five key findings:

German banks have substantially increased their capitalization over the past five years, using a
combination of the main levers: retained earnings, capital increases, and changes to the portfolio such
as the sale of nonstrategic assets. (Exhibit 1 offers data on capital ratios from 2009 to Q3 2014.)



- Banks have also improved their capital-management practices over time. Many now use a more integrated capital-steering approach that better aligns budgeted/allocated capital and risk limits and is run more frequently than in recent years. Capital management now is also based on an integrated decision-making process involving more functions that typically discuss capital-related questions in dedicated committees.
- Looking forward, banks expect to face significant additional capital requirements with the phase-in of Basel III. Based on survey results, we expect that these requirements can be met if banks continue to retain earnings at the same (high) level as in 2009–14 (Exhibit 1).

- However, banks fear that this may not be enough, as more capital requirements are in store. Additional regulatory changes take effect soon (e.g., the European Commission's Bank Recovery and Resolution Directive, adopted on April 15, 2014). Current regulations and guidelines may be enforced in a more standardized way, such as the Supervisory Review and Evaluation Process. A next wave of regulatory changes is on the way—for example, the revised standard approach to credit risk,¹ a potential capital floor for the internal-ratings-based (IRB) approach,² loss-absorbing ratios such as the FSB's total loss-absorbing capacity (TLAC) and the European Union's minimum requirement for own funds and eligible liabilities (MREL).³ Finally, regulators may even enforce discretionary additional capital requirements; for example, the Austrian regulator recently introduced an additional systemic risk buffer of 1 to 3 percent. All have potentially significant capital effects.
- Banks will likely have to take measures beyond the retention of earnings, which is both naturally limited and too slow to meet all of banks' needs (for example, buffers for bail-in requirements). This includes not only short-term no-regret moves like strengthening capital efficiency and closing identified regulatory gaps, but also more structural measures like deleveraging, repricing, and third-party risk transfer to be prepared for emergency situations. In this context originate-to-distribute will also become a more important topic.⁴

These fundamental changes and challenges might affect not only the role and importance of capital management within banks but also banks' overall business models, as well as the traditional lending markets and the overall economy. Therefore banks will need to formulate an even more active and comprehensive approach to capital management, establishing it as the basis of their strategy to shape the balance sheet, capitalization levels, internal management structures, and interactions with regulators. On the other side, regulators might holistically analyze the regulatory implications and reflect those results in their regulatory consultations, supervisory processes, and future regulatory agendas.

¹ "Revisions to the standardised approach for credit risk," Basel Committee on Banking Supervision (BCBS) consultation paper, December 2014, http://www.bis.org/bcbs/publ/d307.pdf.

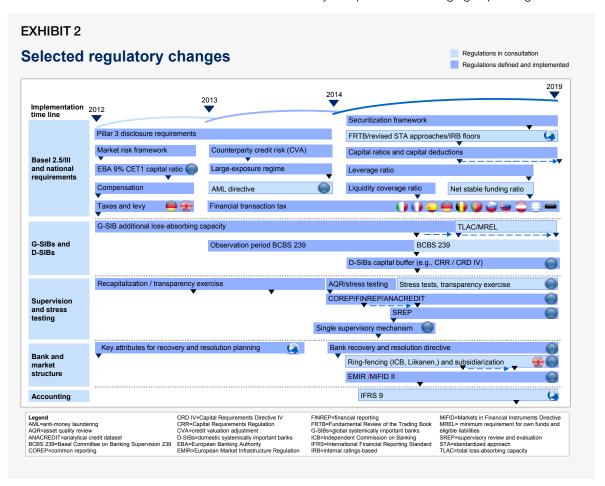
² "Capital floors: The design of a framework based on standardised approaches," BCBS consultation paper, December 2014. http://www.bis.org/bcbs/publ/d306.pdf.

³ "Adequacy of loss-absorbing capacity of global systemically important banks in resolution (TLAC)," Financial Stability Board (FSB) consultation paper, November 2014, http://www.financialstabilityboard.org/wp-content/uploads/TLAC-Condoc-6-Nov-2014-FINAL.pdf; and MREL as referenced in Article 45f of the European Commission's Bank Recovery and Resolution Directive, adopted April 15, 2014, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0059&from=EN.

⁴ See also the forthcoming publication on Active Credit Portfolio Management based on a joint-effort survey with the IACPM and 60-70 of the world's largest banks.

Introduction

It's no secret that the global financial crisis has spawned an immense wave of regulatory reform (Exhibit 2). European banks will be coping with new rules for some time to come. Several new rules have directly addressed capital requirements, and others have sought to protect depositors and customers through the same mechanism. The result has been an enormously complex and challenging capital regime.



The changing regulatory and economic environment has created a number of challenges for banks:

- A "new normal" in banks' profitability is taking shape. Low interest rates have caused private banks' net interest income (as a percentage of total assets) to drop by about 26 percent in Germany between 2009 and 2013. At the same time, stricter regulations and reduced risk taking have effectively shrunk trading income (as a percentage of operating income) from 15 to 10 percent. Because banks cannot retain earnings as they have in the past, they are struggling to cope with ever-growing capital requirements. In addition, banks' need to retain earnings to build capital has made investors wary of limited dividend payouts, so capital increases have become more difficult.
- Banks are also faced with revising their capital and liability plans. While banks have focused on building up common-equity Tier-1 (CET1) capital in recent years, compliance with recovery and resolution requirements is forcing them to build up bail-in-capable capital and senior bonds, which again increases capital and funding costs and negatively impacts profitability.

⁵ McKinsey analysis based on Bundesbank data.

 $^{^{\}rm 6}\,$ Analysis based on SNL Financial data from top 20 German banks by total assets.

Banks classified as significant are also facing new supervision from the European Central Bank (ECB), which may apply greater scrutiny—for instance, more granular and frequent reporting requirements as indicated in the Supervisory Review and Evaluation Process (SREP) guidelines—and a supervisory review method that differs from past practices of national regulators. As a consequence, banks need to rethink their regulatory-management approach.

Taken together, these challenges are making it difficult for banks to maintain a balance between fulfilling regulatory requirements, achieving internal profitability targets, and meeting investor demands. Given these conditions, the focus on capital management has probably never been sharper than it is today. The 2015 edition of McKinsey's biennial capital-management survey of German banks provides an analysis of banks' capitalization as well as related capital-management practices.

This year, we surveyed 15 German banks, mostly privately held institutions and Landesbanks. Together, these banks account for approximately 50 percent of the total assets in the German private banking industry. The survey consisted of structured questionnaires and interviews with bank executives, and was designed to shed light on the development of capitalization levels and quality, the current state of best practice in capital management, and the implications of upcoming regulatory challenges. We have conducted this survey since 2009.

In this report, we first review banks' capitalization levels and their capital-management practices. Second, we review the potential effects on capital of several forthcoming regulations. We conclude by offering a view of the implications of these two developments for the German banking sector.

Stronger Capital and Capital Management

Overall, the survey found that banks' capital ratios have increased since 2009. In addition, capital-management practices have improved in response to stricter regulation. Banks are adjusting their structures, processes, and approaches to improve compliance, but still face significant challenges in their capital management practices.

CAPITALIZATION

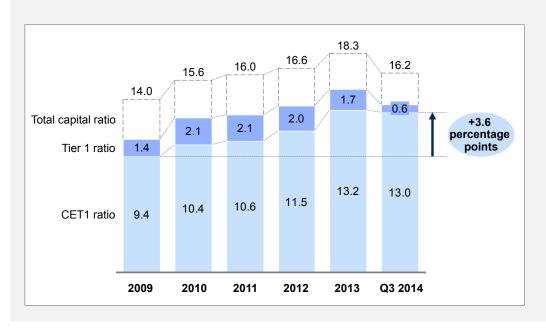
The survey assessed changes in capital ratios from 2009 until Q3 2014, looking at individual regulatory-capital components as well as the evolution in banks' risk-weighted assets (RWA). The study identified an increase of average CET1 ratios from 9.4 percent to 13.0 percent in absolute terms since 2009. It should be noted that the growth of 3.6 percentage points in capital is understated, due to changes in Basel II rules. If banks were to value the current capital composition based on the Basel II rules that prevailed in 2009, rather than today's Basel III rules, CET1 would be even higher.

This improvement in CET1 exceeds the movement observed in Tier-1 (T1) and total-capital ratios, indicating not only an absolute increase of capital, but also a significant improvement in capital quality. Specifically, as shown in Exhibit 3, average T1 ratios of the participating banks have developed at a slightly slower pace of 2.8 percentage points and currently average 13.6 percent. Total-capital ratios also improved over the same period, reaching 16.2 percent in Q3 2014, compared with 14.0 percent in 2009.

The survey found that the growth in capital ratios was driven by both additional capital (the numerator) and a shrinking balance sheet (the denominator). Survey participants have increased their total-capital levels by €14 billion since 2009 (equivalent to an increase of 2.2 percentage points of total-capital ratio), mainly through retained earnings and the issuance of new capital. Furthermore, surveyed banks have not



Participant average, in %



only improved overall capitalization levels but also increased the quality of their capital base. In fact, CET1 capital has risen by more than €40 billion since 2009 (equivalent to an increase of 3.6 percentage points of CET1 ratios)—but because some lower-level capital components were phased out, total capital has risen by just €14 billion. (As a consequence, those lower-tier capital components are now unavailable to fulfill "bail-in-capable" capital requirements of the Bank Recovery and Resolution Directive [BRRD] and MREL.)

In addition to the growth in capital, we see a complementary effect in risk-weighted assets, which have decreased by an average 16 percent over the considered time period. According to the survey data, RWA decreases resulted mainly from reduced business volume, rather than sales from the current book.

CAPITAL-MANAGEMENT PRACTICES

Capitalization levels have improved, and so have capital-management approaches and capabilities, in response to tightening regulatory requirements. According to the survey, banks have adopted regulatory-capital requirements as an integral part of their steering approach, and they have adjusted organizational practices and processes. In addition, more advanced banks are moving toward an integrative steering concept that takes into account the various regulatory and business factors essential to strategic decision making. Despite this progress, challenges remain for banks' practices.

Regulatory-capital requirements play a preeminent role

As Exhibit 4 shows, the survey indicates that regulatory capital has become an integral part of banks' steering approach, with roughly 70 percent of banks now managing regulatory and economic capital in parallel. The latter is used mostly to comply with requirements of the Internal Capital Adequacy Assessment (ICAAP) and the related provisions of the German "Mindestanforderungen an das Risikomanagement" (MaRisk). In past years, banks adopted more diverse approaches, often focusing on economic capital only, but scarcity of capital has led to a more regulatory-driven and uniform approach. Along the same lines, regulatory capital is currently seen more often as the binding constraint, which is

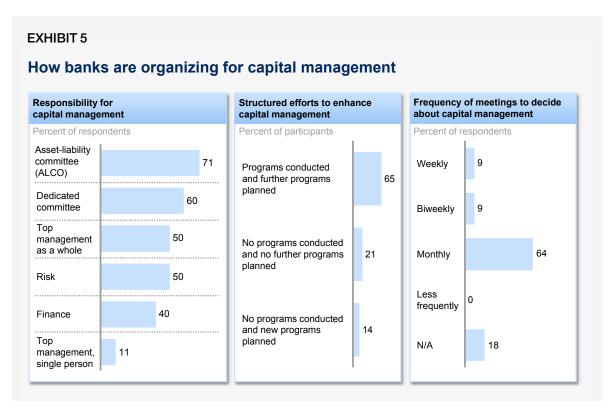
why we now see capital management entering into pricing decisions (as discussed in our interviews with survey participants). On the business side, capital usage is now often understood as a core part of the pricing formula. In fact, over 60 percent of survey participants use a nominal or risk-adjusted return on regulatory capital in order to set hurdle rates.



Banks have adjusted organizational structures and processes

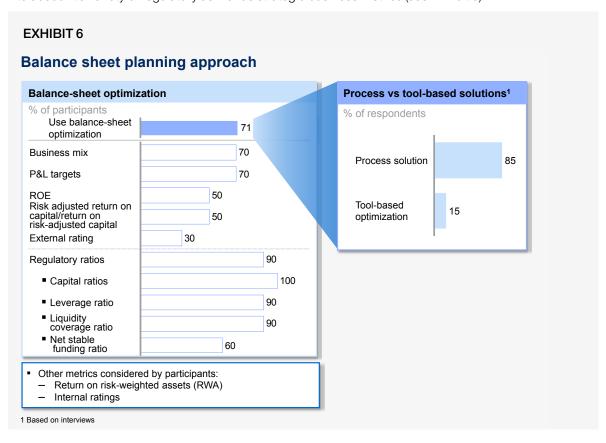
Banks have also made changes in their operations, bringing processes and steering mechanisms into close agreement, such that most institutions have now achieved a more precise alignment of allocated or budgeted capital and risk limits. We also see more frequent reviews of capital usage and effectiveness (i.e., performance management) with consequent reallocation. More than 60 percent of the surveyed banks measure performance based on consumed capital. In addition, the majority of banks (about 60 percent) have driven structured efforts to improve their capital efficiency, and plan to conduct more such programs. Based on our experience, such efforts seek improvement of data quality, updates of risk methodologies to better reflect the given exposures, and process improvements to systematically incorporate capital consumption and RWA in business decisions.

The survey also reveals that today more functions are involved in capital-management decisions than in previous survey rounds. This is mainly a result of the growing need for increased coordination to react to capital scarcity and regulatory requirements. While previous surveys in 2009 and 2011 indicated that finance and dedicated committees held primary responsibility for capital management, we now see a stronger involvement of and cooperation among various functions (Exhibit 5). Although dedicated committees like the asset-liability committee (ALCO) are still decision-making bodies, we see more involvement in the process from functions such as risk, finance, treasury, and credit-portfolio management. The governance approaches to capital management are described as either risk led (31 percent) or jointly led by risk and finance (23 percent). In addition, capital-management decisions are frequently elevated to the board level, including banks at which the top management as a whole has the ultimate decision-making power. In most banks (80 percent of participants), committee work on capital management is taking place at least monthly, which is more frequent than in the past.



Banks are developing integrated balance-sheet steering approaches based on process solutions

The survey also shows that banks' capital-steering approaches have become more comprehensive. At leading banks, the capital-steering process is now informed by holistic balance-sheet planning and takes into account a variety of regulatory as well as strategic business metrics (see Exhibit 6).



Eleven banks provided details about their balance-sheet planning approach. All of them consider regulatory-capital ratios, and a majority (70 percent) recognizes business mix and P&L targets. However, banks have been slower to adopt liquidity metrics and external-rating requirements. Similarly, only a few more-advanced banks use holistic tools—an integrated consideration of resource constraints, regulatory requirements, and strategic goals—to support their decision making. In our interviews, only a couple of the surveyed banks said they use such tool-based approaches to decision making and capital planning, while the rest rely on process solutions.

Banks still face challenges in their capital management practices

Despite these significant upgrades, our survey indicated a few improvement areas for banks:

- Some leading banks are reallocating capital more frequently, using advanced approaches to improve their capital efficiency. However, many banks still face challenges in allocating capital, especially for credit risk, to the necessary level of detail. And at many banks, capital allocation is still done only once a year without reallocation during the year.
- The parallel management of regulatory and economic capital poses challenges in terms of aligning the respective steering metrics at different levels of the institution.
- The duration of the RWA calculation process varies significantly across banks; most take between 10 and 25 days. Process length is clearly dependent on the degree of manual adjustment required, the complexity of the underlying IT infrastructure, and monthly regulatory reporting cycles. For more informed decision making and faster capital steering, faster calculation would be beneficial.

Upcoming Regulatory Changes Will Pressure Capital

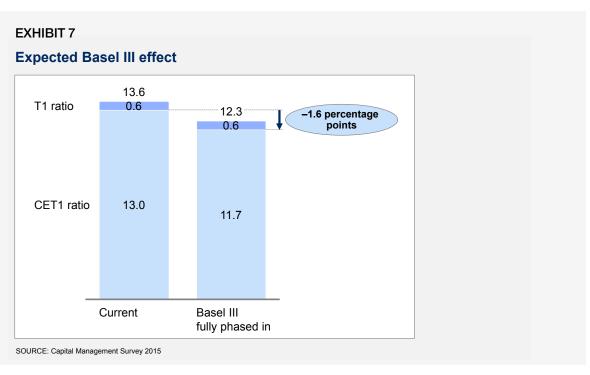
German banks have continually improved their capitalization levels over the past five years, partly in reaction to increased regulatory requirements. However, forthcoming regulatory changes are expected to create further pressure on banks' management of capital resources. Some of these changes are already clear (e.g., Basel III), while others need to be finalized, so the impact is not fully transparent (e.g., SREP, revised standardized approach [STA], IRB floor, and TLAC/MREL).

SOME REGULATORY CHANGES ARE ALREADY CLEAR . . .

Survey respondents expect a full phase-in of Basel III to reduce CET1 ratios by 1.6 percentage points on average (Exhibit 7). This effect is driven mainly by capital deductions and the related endpoint definition of CET1 capital, to be applied by EU banks from 2018 onward. Our calculations show that at current capital and RWA levels, the banks participating in our survey would need to retain approximately another €20 billion of earnings to maintain current levels. These results are in line with estimates by the Bundesbank, which expects an aggregated €28.1 billion reduction in CET1 capital under fully phased rules for 44 German banks covered in the Basel III monitoring.⁷

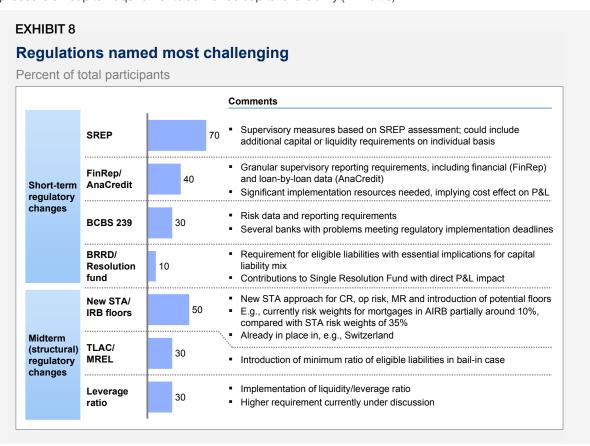
Our analysis of the survey data indicates that banks can mitigate the majority of these effects by retaining earnings at the same high rate as they have in recent years. Of course, this becomes more challenging as low interest rates persist. And naturally, such measures should be taken only after a comprehensive discussion of other potential uses for earnings, especially shareholder dividends.

Figebnisse des Basel III Monitoring für deutsche Institute, Bundesbank, March 2015 (based on banks' balance sheets as of June 30, 2014) https://www.bundesbank.de/Redaktion/DE/Downloads/Aufgaben/Bankenaufsicht/Basel/2013_06_basel3_ monitoring_deutsche_institute.pdf?__blob=publicationFile.



... OTHER REGULATIONS ARE NOT YET FULLY TRANSPARENT

While the Basel III changes and schedule for implementation are already well defined and thoroughly understood by the industry, a variety of regulation is still to be properly defined and implemented. The Capital Management Survey has highlighted several regulations that the industry expects will place further pressure on capital requirements as well as capital availability (Exhibit 8).



Participants expect four main capital-related effects:

- Seventy percent of the surveyed banks agreed that the new supervisory review and evaluation process (SREP) will have the greatest impact on capital levels. This view is driven mainly by concerns over the regulatory benchmark (64 percent), potential add-on capital requirements for the assessment of capital adequacy (55 percent), and interest rate in the banking book (IRRBB) and stress testing (45 percent) within the SREP framework.
- Half of the survey participants cited the new standard approach for credit risk and the closely related potential floors of IRB models as most significant to the future development of capital ratios. However, both regulations are still under consultation by the Basel Committee on Banking Supervision and as such are subject to further amendments and calibration.
- Thirty percent of banks expect the new standards for total loss-absorbing capacity (TLAC/MREL) to affect capital requirements. Several survey participants assume that, upon finalization, the regulations will initiate new discussions between banks and regulators about the optimal capital structure.
- About the same proportion of banks indicated that the leverage-ratio regime and IFRS 9 could potentially introduce further, industry-wide capital effects not yet fully specified.

Moreover, a comparison of the answers provided by smaller versus larger banks (with the cutoff set at €50 billion total assets) indicates that especially for smaller banks, the order by significance varies, with the new STD approach being on top of their list, followed by SREP and the Basel III/Capital Requirement Regulation (CRR) implementation.

According to our analysis, there are indeed various regulations under way that will result in additional pressure on capital ratios. For example, we analyzed how new capital floors might affect banks by looking at jurisdictions where such measures have already been implemented.

In the US, large bank holding companies are required to calculate both the general applicable (standardized) as well as the advanced approach under the so-called Collins Amendment. Subsequently, these banks are obliged to apply the respective maximum for regulatory capital calculations, effectively flooring risk weighted capital requirements at 100% of the STA. In addition, in 2013 the Swiss Financial Market Supervisory Authority (FINMA) introduced a countercyclical capital buffer for residential realestate exposures, which was initially calibrated at 1 percent of RWA and after a recalibration stands at 2 percent of RWA. With mortgages traditionally accounting for roughly 10 to 25 percent of Swiss banks' RWA, an increase in capital requirements of up to half a percent of RWA can be expected. Moreover, according to independent research published by the Bank for International Settlements (BIS),8 average mortgage rates of banks have already increased by 18 basis points (bps) after the initial activation of the CCB. The contemplated pricing effect was found most pronounced for capital-constrained banks and banks specializing in the mortgage business, which increased their respective prices by an average of 2.72 bps and 5.57 bps more than their universal, unconstrained peers. Moreover, implementation of these new rules may coincide with the Basel III phase-in and compound its impact. See the following pages for closer looks at the impact of three regulatory developments: the SREP, the new standard approach, and FRTB. Our analysis shows that the potential effects on capital ratios as well as strategic management of banks might be substantial, depending on individual portfolio composition and the extent of mitigating measures taken.

Christoph Basten and Cathérine Koch, "Higher bank capital requirements and mortgage pricing: Evidence from the Countercyclical Capital Buffer (CCB)," Bank for International Settlements (BIS), 2014 https://www.bis.org/bcbs/events/bartnf/bastenkoch.pdf.

Deep Dives: Exploring Regulations and their Implications for Banks

Key regulations and supervisory practices are likely to have ongoing significant impact for German banks. Our analysis explores essential features of three regulatory developments. Based on the respective, current state of the regulations and consultations, our assessment indicates both short- and medium-term challenges that will need to be respected in holistic bank and capital management.

1. DEEP DIVE: SUPERVISORY REVIEW AND EVALUATION PROCESS (SREP)

Background9

- The SREP guidelines coming into force in 2016 will harmonize the Pillar II supervision of all institutions across the European Union and ensure that institutions have adequate arrangements, strategies, processes, and mechanisms as well as capital and liquidity to ensure sound management and coverage of their risks, including those revealed by stress testing.
- The SREP framework hinges on four main components: (a) business-model analysis; (b) assessment of internal governance; (c) assessment of risks to capital and adequacy of capital; and (d) assessment of risks to liquidity and adequacy of liquidity.
- Assessment is summarized through a common scoring (on a scale where 1 is no discernible risk and 4 is high risk; F represents Failed). It will lead to consistency in setting supervisory requirements to hold additional capital and liquidity resources as needed.

Implications for banks:

The impact of these new guidelines on banks is illustrated in Exhibit 9 on the SREP framework.

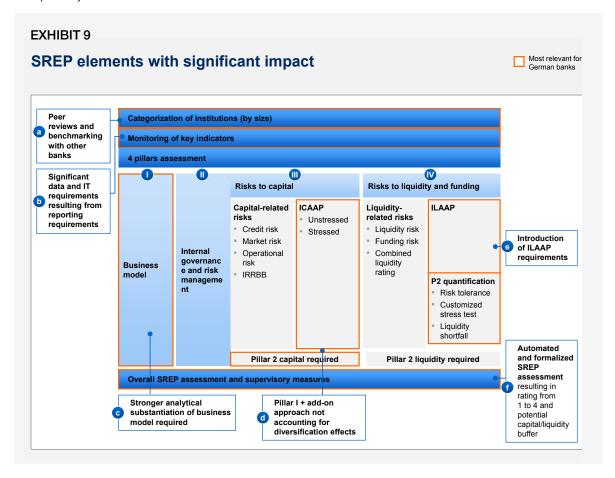
The following list, which is not exhaustive, describes the impacts identified:

- a. The application of peer reviews and benchmarking with other banks may influence joint supervisory team expectations (e.g., thresholds being used, modeling requirements being defined), and a disadvantageous selection of benchmarks may lead to additional capital and liquidity requirements.
- b. The SREP process will involve quarterly reporting of a set of standard key indicators as well as a more frequent (dependent on the risk profile of the bank) and more extensive assessment of a broad range of measures, exceeding the current common solvency ratio and financial reporting standards (COREP/FINREP) reporting standards. This will necessitate the upgrade of data and IT systems to fulfill the additional reporting requirements.
- c. The review of the business model will require strong analytics and substantiated assumptions (stress testing, scenario analyses, driver analyses, etc.) by banks, and a through-the-cycle view will need to be developed on the sustainability of the own business model. Additionally, business planning needs to be fully integrated with a risk-appetite statement, stress testing, ICAAP, internal liquidity assessment process (ILAAP), recovery and resolution plans, etc.
- d. The evaluation of risks to capital will not take into consideration interrisk diversification effects for the capital-adequacy assessment. Additionally, banks are discussing whether the regulatory and economic capital assessment will converge in a Pillar I–plus–add-on approach and whether that may lead to higher capital requirements, due to the additive consideration of risks.

⁹ Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP), European Banking Authority (EBA), December 2014 https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+(Guidelines+on+SREP+methodologies+and+processes).pdf.

 $^{^{\}rm 10}\!$ According to 7.2.1, 329 of SREP Guidelines.

- e. Banks will need to introduce frameworks describing their liquidity and funding risk-management approach (ILAAP). No specific guidance has been provided by supervisors so far.
- f. The SREP assessment is expected to be significantly more automated, standardized, and formalized than previous Pillar II reviews by local regulators. In the worst case, this may result in a black-box kind of approach that cannot be actively managed by banks, since the scoring methodology will not be publicly available.



2. DEEP DIVE: NEW STANDARDIZED APPROACH

Background¹¹

The Basel Committee on Banking Supervision (BCBS) is currently reviewing the standard approaches for credit, market, and operational risk, planning to finalize parts of these more risk-sensitive frameworks as early as the middle of 2015.¹²

[&]quot;Revisions to the standardised approach for credit risk," Basel Committee on Banking Supervision (BCBS) consultation paper, December 2014, http://www.bis.org/bcbs/publ/d307.pdf; "Fundamental review of the trading book: A revised market risk framework," BCBS 2nd consultation paper, October 2013, http://www.bis.org/publ/bcbs265.pdf; and "Fundamental review of the trading book: Outstanding issues," BCBS consultation paper, December 2014, http://www.bis.org/bcbs/publ/d305.pdf; "Operational risk: Revisions to the simpler approaches—consultative document," BCBS consultation paper, October 2014, http://www.bis.org/publ/bcbs291.pdf; "Capital floors: The design of a framework based on standardised approaches," BCBS

¹² Reducing excessive variability in banks' regulatory capital ratios, BCBS report to the G20, November 2014 http://www.bis.org/bcbs/publ/d298.pdf.

- Next to revisions to the standardized approaches, discussions cluster around additional floors to be imposed on banks using internal approaches (based on standardized approaches). Such floors are meant to increase comparability of capital requirements under all approaches and reduce a contemplated variability of RWA across the banking sector.
- Apparent from the consultations around the standard approach to credit risk, regulators also see
 these revisions as a means to reduce the reliance on external credit ratings (e.g., through a proposed
 risk-weighting of exposures according to selected risk drivers).

Selected changes:

- Credit-risk exposures would no longer be risk-weighted by reference to ratings, but would instead
 be based on a lookup table where risk weights range up to 300 percent on the basis of a portfoliodependent set of risk drivers (e.g., revenues and leverage for corporates).
- Further proposals address comprehensive changes to the treatment of off-balance-sheet exposures, credit-risk mitigations, capital and equity instruments, currency mismatches, and past-due loans.
- Furthermore, a revised standardized approach for operational risk, based on a newly defined business indicator and size-dependent risk coefficients (currently segment based), would replace all existing simple approaches in this area.
- With regard to the capital-floor framework currently considered for banks using the advanced internal ratings-based approach (IRBA), discussions continue about its final design (either risk-category-based floor, aggregate-RWA-based floor, or exposure-based floor) and calibration.

Implications for banks:

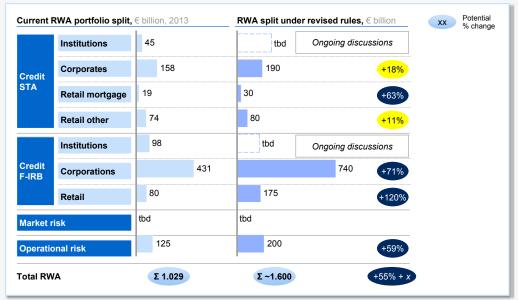
- To date, we observe significant variations in average risk weights of banks using internal measurement approaches (e.g., risk weights for mortgages ranging from 10 to 30 percent and for corporates between 40 and 70 percent).
- Depending on individual portfolio composition, our analysis shows that credit-risk RWA per portfolio may increase by 10 to 80 percent, while operational-risk RWA can more than double under new STA rules and IRB floors.¹³
- In the long run, these conditions might create an additional need for banks to increase their capitalization in order to maintain current capital ratios.
- According to our calculations, the BCBS revision in its current form could have a profound impact on the regulatory capital requirements of European banks in general and German banks specifically. As indicated in Exhibit 10, a representative German bank sample may, for example, experience an increase of up to 80 percent on total RWA (assuming risk weights of IRB portfolios to be floored at 80% of the STA), even if one does not account for any changes to market-risk RWA under FRTB (discussed in the next deep dive).¹⁴

¹³ Based on preliminary calibrations of related BCBS consultations.

¹⁴ The sample includes the 24 German banks subjected to the EBA stress-testing exercise in 2014, as referenced in Annex 1 of the EBA's final stress-test report. Results of 2014 EU-wide stress test: Aggregated results, EBA, October 2014. EBA selected the sample to cover at least 50 percent of the national banking sector as expressed in terms of total consolidated assets as of the end of 2013.

EXHIBIT 10

Conservative estimate of revised STA and IRB floors RWA effects on German bank sample



1 Higher OpRisk RWA and higher credit RW under new STA approaches; higher RW for IRB portfolios under an 80% floor based on STA approaches SOURCE: EBA Stress Test 2014; McKinsey analysis

3. DEEP DIVE: FRTB

Background¹⁵

- With the key regulations of the Fundamental Review of the Trading Book set to be finalized by the end of 2015, the BCBS is delivering on a multiyear effort of revising the Basel market-risk framework. After finalization of the regulation, there will be a period of calibration ahead of an anticipated go-live at the start of 2018.
- The regulation aims at strengthening capital standards for market risk, in particular by better capturing tail and liquidity risks, and fostering a consistent implementation of standards at the intersection of the banking and trading books.
- The review is also seen as a milestone in promoting comparability between market-risk capital requirements across jurisdictions and capital-calculation approaches, devoting considerable effort to harmonized and appropriately calibrated risk-calculation methodologies.
- In this context, the communicated goal of the BCBS is to produce no overall capital increase for the industry, though capital might be redistributed among banks.

Selected changes:

■ FRTB will feature revised boundary definitions for the banking and trading books across banks (versus subjective "intent to trade") based on positions-risk management and including stricter limits on internal risk transfer.

¹⁵ "Fundamental review of the trading book: A revised market risk framework," BCBS 2nd consultation paper, October 2013, http://www.bis.org/publ/bcbs265.pdf;

[&]quot;Fundamental review of the trading book: Outstanding issues," BCBS consultation paper, December 2014, http://www.bis.org/bcbs/publ/d305.pdf.

- Moreover, the standardized approach will be substantially revised based on sensitivities, calibrated on a period of significant financial stress (like internal models). The approach may furthermore serve as a mandatory backstop for internal models, potentially in the form of a capital floor or in the event that a bank loses internal-model approval for a specific desk.
- In addition, FRTB introduces "expected shortfall" as a relevant risk metric for internal-models-based approaches (substituting value at risk), incorporates a more differentiated approach to market illiquidity risk via different liquidity horizons for different product types, and constrains diversification benefits.
- New rules on model approval and validation processes on trading-desk level will also call for more granular management and transparency of market risks.

Implications for banks:

- The contemplated changes in the methodology of the revised standardized approach will produce considerable implementation efforts for all banks with exposures in the trading books—those relying on it exclusively, as well those required to calculate it as a backstop to their internal models.
- Furthermore, banks will have to adjust their day-to-day operating market-management approach, as
 the expected shortfall is introduced as the relevant risk metric, and model approval is refined to the
 individual-desk level.
- FRTB, in its current draft version before calibration, may drive additional demand on regulatory capital requirements of European banks. With the changes currently proposed, our estimations suggest that market risk RWA may increase by around 65 percent on average across the industry, whereas individual impacts can range from under 50 percent to around 105 percent. This of course, is prior to the calibration phase, which may be used to alter the overall industry impact. It also does not reflect the potential impact of the application of the standardized approach for unapproved desks or as a floor.
- For a more detailed analysis of FRTB changes and their implications for banks, please refer to the forthcoming McKinsey white paper on FRTB, which specifically addresses the implications of the new FRTB regulation and how banks should be thinking proactively about mitigation strategies from a capital, operational, and business-steering perspective.

Implications for the German Banking Sector

With regulatory expectations and capital requirements rising within the European Banking Union, we see a need for German banks to prepare now for a range of regulatory scenarios. Banks must consider not only the primary effects of additional regulations that we have delineated, but also some second-order effects that might further impair earnings capacity and capital, and require additional remediation actions:

- The issuance of relatively expensive "bail-in" instruments might result in lower earnings capacity and capital buildup.
- The new costs of the EU single-resolution fund, and the implementation costs of BCBS239, FinRep, and AnaCredit, 16 will restrict capital availability. We estimate that global systemically important banks (G-SIBs) will need to invest \$230 million on average to implement BCBS 239 only.
- German banks have relatively inflexible cost structures, as evidenced by high cost-to-income ratios compared with their European competitors (approximately 70 percent compared with a European average of about 60 percent).¹⁷ This restricts their earnings capacity and requires more capital.

¹⁶ BCBS 239 refers to *Principles for effective risk data aggregation and risk reporting*, Basel Committee for Banking Supervision Publication 239, Bank for International Settlements, January 2013, bis.org. FinRep refers to various guidelines issued by the European Banking Authority on financial reporting, eba.europa.eu. AnaCredit refers to the ECB's Analytical Credit Dataset initiative, which is based on decision ECB/2014/6 on the collection of granular credit data by the European System of Central Banks.

¹⁷ Analysis based on domestic banks, European average over 28 countries.

Given these regulatory, structural, and operational uncertainties, we see a need for banks to get full transparency on the potential impact of regulatory changes on their capital base and regulatory readiness. With that assessment in hand, banks can then start addressing and mitigating short-term challenges; identify, assess and potentially prepare structural measures; and adapt their regulatory and capital-management approach to upcoming regulatory changes and supervisory processes.

1. DETAILED PREPARATION FOR UPCOMING REGULATORY CHANGES

It almost goes without saying that banks need transparency into their compliance with upcoming regulatory changes and the impact of these changes on their business model, portfolios, profitability, balance sheet, and capital. This transparency will be essential to assess readiness (key weaknesses and required improvements) and early preparation for regulatory changes, as well as related or influencing regulations (e.g., resolution plan). We see significant room for German banks to improve. While most banks expect significant impact from the new SREP guidelines, for example, our survey indicates that currently only 25 percent are developing a detailed understanding of the new rules and preparing a response for their implementation. Similarly, only a few more-advanced banks are assessing their position, mapping internal capabilities against expected requirements, and developing initiatives to address potential gaps.

2. MITIGATING SHORT-TERM IMPACT

Banks can start addressing and mitigating short-term challenges (e.g., SREP, Resolution Fund) early by taking no-regret moves—for instance, by further strengthening capital efficiency and avoiding resource waste and optimizing business portfolios and balance sheets under most-likely regulatory-outcome scenarios. Additionally, banks should launch targeted initiatives to address key gaps and weaknesses they have identified in self-assessments, such as on SREP-relevant processes and governance vis-à-vis business needs and ECB-accepted range of industry practices (e.g., improved substantiation of business planning, linking of business plan with risk appetite statement, stress-testing framework, ICAAP, ILAAP).

3. TAKING STRUCTURAL MEASURES

Leading banks formulate operational contingency and emergency plans, backed by concrete measures. We see more-advanced banks moving toward bankwide compendiums of strategic plans that discuss and detail initiatives such as further deleveraging, repricing, third-party risk transfer, issuance of bail-ineligible bonds or lower-tier instruments, and other structural changes. However, to thoroughly plan such structural changes, banks will need to form a comprehensive understanding of their current balance-sheet structure and any needed adjustments over the short to medium term. These adjustments might be made to address the bank's funding structure, capital levels and composition, and business mix. In this work, time is of the essence, given that the implementation of BRRD, SREP capital add-ons, and MREL will likely coincide.

4. REVIEWING THE REGULATORY-MANAGEMENT SETUP AND CAPITAL

On the regulatory side, partly driven by the SREP, several institutions are enhancing their organizational response by establishing a single point of contact for the regulator and an internal organization charged with holistic coordination of the various regulatory initiatives. Smaller institutions in particular are looking for opportunities to cooperate and share the burden of increased regulations, which is difficult to manage, given the more restricted resources.

¹⁵ "Fundamental review of the trading book: A revised market risk framework," BCBS 2nd consultation paper, October 2013, http://www.bis.org/publ/bcbs265.pdf; "Fundamental review of the trading book: Outstanding issues," BCBS consultation paper, December 2014, http://www.bis.org/bcbs/publ/d305.pdf.

On the capital side, we see significant challenges for the German banking industry to build the total loss or bail-in capacity needed under the BRRD regime. German banks have focused on building CET1 capital over the past few years and have to some extent phased out lower-tier capital, especially the Tier-2 capital instruments that qualify for bail-in. Banks will have to formulate a comprehensive approach to capital and liability management until the BRRD takes effect at the beginning of 2016, so they can continue to issue senior unsecured bonds at current price levels and comply with upcoming MREL requirements. The sizing of the capital buffer (e.g., based on stress testing) will add further complexity to capital management.

Capital management will become even more essential to steering banks successfully through a tightening regulatory environment. We see a competitive advantage for those banks that plan ahead now for the next four to five years, respecting the strategic imperatives of upcoming regulation, ECB supervision, the low-interest environment, and their own structural earning potential.

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