1. Introduction

In the post-financial crisis environment, the global banking industry faces a number of difficult challenges. These range from pressures caused by the erosion of earnings, to rising operating costs, to an increasingly complex infrastructure, to proliferating regulatory requirements. These requirements have been implemented in part as a response to the financial crisis, to increase the stability of the financial markets and to prevent further negative impact on the economy. One major focus – represented by Basel III – is on strengthening global capital and liquidity rules.

Key components of the Basel III framework include: a stricter definition of capital; increased capital requirements for counterparty credit risk arising from derivatives, repurchase agreements (repos) and securities financing activities; and the introduction of higher capital ratios, a non-risk-based leverage ratio and a new global liquidity standard. These new requirements, and the associated higher capital and liquidity costs, put further pressure on the profitability of banks. Banks may review and adjust their business model and funding strategy to fulfill the new rules on the one hand, and go beyond compliance and restore profitability to protect shareholder value on the other. Basel III, therefore, can be much more than a regulatory matter; it can be a business issue with a regulatory trigger.

The capital squeeze resulting from Basel III is also making the optimization of risk-weighted assets (RWA) a key topic of discussion around the new framework. RWA optimization is not a new topic as many banks have conducted corresponding projects in the past and have implemented different measures. With Basel III, however, RWA optimization can become more important, as an increase of the capital base – which is vital for the survival and growth of banks - is limited. Furthermore, with Basel III and the higher capital requirements for certain instruments, topics and methods, new concerns and levers can become the focus of attention. These have not been the focus of past RWA optimization considerations. “Basel III RWA optimization” can be seen as an extension of the “Basel II RWA optimization”.

Figure 1 summarizes the Basel III capital requirements that can lead, all other things being equal, to a reduction of the available regulatory capital (due to the stricter definition of capital) and an increased RWA (enhanced risk coverage); these results should be seen against the background of increased capital ratios.

Definition of capital

Basel III introduces a new definition of capital to increase the quality, consistency and transparency of the capital base. Common equity (i.e., common shares and retained earnings) must be the predominant form of Tier 1 capital. Further, Tier 2 capital is simplified and reduced, Tier 3 capital is eliminated, and regulatory adjustments are harmonized and generally applied at Common Equity Tier 1 capital (CET 1 capital). Finally, Basel III changes the disclosure requirements and introduces a new limit system of the capital components.

Altered risk coverage

In addition to the reforms to the Basel II framework by the Basel Committee on Banking Supervision (BCBS) in 2009 and the amendments made in the European Capital Requirements Directive III (CRD III) applicable to EU member states – increased capital requirements for the trading book and complex securitization positions, stressed value-at-risk capital requirements for the re-securitization of the banking and trading books – Basel III adds the following reforms: calculation of the capital requirements for counterparty credit risk (CCR) based on stressed inputs; introduction of a capital charge for potential mark-to-market losses (credit valuation adjustment, CVA) for OTC derivatives; increased asset value correlation in the IRB approach for exposures to certain financial entities; strengthening standards for collateral management and initial margining; raising CCR management standards.

In addition, for Basel III, in May 2012 the BCBS published a consultative document for a fundamental review of the trading book, which includes several measures to improve trading book capital requirements.

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2. Basel III may also lead to an increased level playing field regarding RWA, i.e., the RWA figures of institutions across regions are typically becoming more comparable. An analysis of RWAs between regions as well as over time can be found in Accenture (2012): The New Importance of Risk-Weighted Assets across Europe; http://www.accenture.com/us-en/Pages/insight-new-importance-risk-weighted-assets-across-europe.aspx
Higher capital ratios

While the total capital ratio under Basel III will remain eight percent of RWA, CET 1 capital ratio increases from two percent to 4.5 percent and the additional Tier 1 capital ratio is 1.5 percent, leading to a Tier 1 capital ratio of 6 percent. Tier 2 capital decreases by reducing the ratio to 2 percent of RWA. In addition to the total capital ratio Basel III introduces a capital conservation buffer of 2.5 percent of RWA which applies at all times, as well as a countercyclical capital buffer in the range of 0 to 2.5 percent depending on macroeconomic circumstances. For global systemically important banks (G-SIBs) an extra buffer of 1 to 2.5 percent will be implemented.4

On a national level, additional capital buffers (e.g., for systemic risk) might be imposed. All the buffers are to be met with CET 1 capital.

Our focus is on RWA optimization, i.e. on optimizing the denominator of the fraction in Figure 1.5 There are also several measures on the capital side which banks might consider in an effort to fulfill regulatory requirements and to restore profitability.6

It should be noted that in some regions such as the European Union (EU), the Basel III requirements are implemented through own legal instruments (in the EU through the Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD IV)). The final versions of these documents have not been published yet, so that banks have to deal with the implementation of the new requirements and RWA optimization measures, although several aspects which might have a material impact on the capital requirements are still in discussion. Several aspects of the CRR and CRD IV also have to be specified by technical standards released by the European Banking Authority (EBA). Many of them will be published in the next few years after Basel III is in force. Ultimately one question is whether all regions will implement Basel III as planned, or if we will see major content-related deviations, delays or even non-implementation in some countries, as was the case with Basel II.

Figure 1: Increased capital requirements in Basel III

- Increased Tier 1 capital (going concern)
- Simplification and reduction of Tier 2 capital (gone concern)
- Elimination of Tier 3 capital
- New eligibility criteria and limits for capital components
- Increased RWA for counterparty credit risk (CCR) – calculation based on stressed inputs
- Introduction of a capital charge for potential mark-to-market losses of OTC derivatives (CVA)
- Increased asset value correlation (AVC) in the IRB approach for exposures to large regulated and non-regulated financial entities
- Introduction of capital charge for specific wrong way risk
- Further strengthening of standards for collateral management and initial margining; raising CCR management standards

Source: Accenture

4. The bucketing approach of the BCBS to determine the magnitude of additional loss absorbency for G-SIFIs includes for the highest populated bucket a buffer of 2.5% of RWA at all times; there is an initially empty top bucket with a buffer of 3.5% of RWA. See BCBS (2011): Global systemically important banks: assessment methodology and the additional loss absorbency requirement; http://www.bis.org/publ/bcbs207.pdf

5. This document focuses on regulatory capital within pillar 1 of the capital framework. The optimization of the economic capital (pillar 2), e.g., by consideration of intra- and inter-risk dependencies is not covered.

2. Basel III RWA Optimization

2.1 Key determinants of RWA

Accenture has identified the following as key determinants influencing the RWA of banks. For a more detailed discussion see Accenture (2012): The New Importance of Risk-Weighted Assets across Europe:

**Business model**
The business model is one of the key factors of banks’ RWA, which can affect the portfolio and balance sheet structure. Banks with large trading and investment bank activities and securitization positions can be more affected by the new capital requirements of Basel III than commercial banks focusing on “traditional” customer loans. Even for commercial banks, however, RWA optimization can be crucial, considering the increased capital requirements and the limited possibility to increase CET 1 capital through the capital markets or by retaining earnings. The business model is an important factor of the risk profile of a bank.

**Risk management**
The approaches used to calculate the capital requirements for credit, market and operational risk and the models used for estimating the risk parameters, policies, and monitoring or recovery procedures often have a significant impact on RWA.

**Data quality and IT infrastructure**
Additionally the RWA is often influenced by the IT infrastructure, data availability and data quality. For instance the correct mapping of transactions to the asset classes or the quality of PD and LGD estimations often depend on the availability and quality of data. This is a key aspect under Basel III as several RWA optimization measures require data that is not always available in some banks’ systems.

**Supervisory practices**
Different supervisory practices such as the criteria for cycle adjustments (e.g., point-in-time vs. through-the-cycle models), the definition of a downturn, or the validation and approval process of IRB models might also impact the RWA.

**Accounting standards**
Finally, accounting standards can have a material impact on RWA and they may also explain some of the RWA differences between banks in different regions (examples can be found in Accenture (2012): The New Importance of Risk-Weighted Assets across Europe). The interaction of developments in regulatory and accounting standards pointed out by the European Banking Federation creates a number of beneficial issues worth examining in greater detail.7

2.2 Focus Topics for Basel III RWA Optimization

In the early stage of Basel II implementation many banks focused on regulatory compliance rather than on RWA optimization, and potential RWA reliefs were often not fully utilized. Market developments forced banks to focus more on RWA optimization and many banks implemented corresponding projects, often with a focus on credit risk (such as the implementation of IRB approaches) and in the course of doing so realized significant capital relief. The new regulatory requirements of Basel III reinforce the importance of RWA optimization measures focusing, at least in part, on new topics and levers such as Credit Valuation Adjustment (CVA). Figure 2 provides an overview of RWA optimization focus topics; while some of the aspects are Basel III specific, others are not but may need to be evaluated or re-evaluated in light of the new requirements. It should be noted that there are overlaps between the topics. While Figure 2 provides a generic overview, the focus topics of a concrete RWA optimization project can depend on the specifics of the bank and the associated key risk drivers. Furthermore, the RWA impact of Basel III can vary between the different business units; for instance, it may be significantly smaller for the retail business compared to the trading units.

For identifying and implementing RWA optimization measures it is important to consider not looking solely at RWA figures but also at the impact on profitability. Otherwise, banks can run the risk of reducing or eliminating RWA-consuming activities even though they are profitable and therefore beneficial to building up the capital base through retained earnings. The dependencies with other Basel III topics such as liquidity ratios should also be considered.

Accenture’s experience shows that sometimes, in addition to the RWA figure, the expected loss (EL) in the form of a scaled RWA – leading to a “RWA equivalent” as key metric – be considered in RWA optimization projects.

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Figure 2: RWA optimization focus topics

Focus Topics

**Approaches & Models**
1. Approaches for credit, market and operational risk
2. Models and methods

**Processes**
3. Processes with direct and indirect impact on RWA covering front, middle and back office operations

**Counterparty Credit Risk (CCR)**
4. Approaches and models CCR
5. Credit valuation adjustment (CVA)
6. Central clearing
7. Asset value correlation (AVC)

**Business Model/Portfolio Optimization**
8. Business model under Basel III
9. Portfolio structure
10. Client structure
11. Product structure

**Collateral Management**
12. Collateral management credit risk
13. Collateral management market risk

**IT & Data Quality**
14. IT infrastructure
15. Data quality

**Review and validation**
- Impact analysis
- Definition of target situation
- Derivation and prioritization of RWA optimization measures
- Implementation of RWA optimization measures

**Active RWA, portfolio and balance sheet management**

**Go beyond compliance/restoring profitability**

Source: Accenture
2.2.1 Approaches and Models

1. The regulatory approaches for measuring credit, market and operational risk are one of the RWA optimization levers.

Many of the larger banks have implemented internal approaches for market risk and the Internal Ratings Based (IRB) approach for credit risk for a large portion of their portfolios. For operational risk, it seems that only major banks are using an Advanced Measurement Approach (AMA). For banks not using an AMA the implementation of such an approach could lead to a RWA relief. In the past, several banks evaluated the implementation of an AMA, not least due to the fact that the relevant indicator (gross income) used in the basis indicator approach and in the standardized approach increased, leading to higher capital requirements. Data quality issues and the high sensitivity of internal operational risk models (low frequencies and high impact events) often prevented an implementation in the past.

With Basel III many larger banks are once again considering implementation of an AMA to reduce RWA. Within the standardized approach for operational risk the potential for RWA relief may lie in the correct and complete mapping of transactions and their incomes to pre-defined business lines which are assigned different “beta factors”.

For banks using the standardized approach for credit risk the implementation of an IRB approach could lead to lower RWAs. Whether the effect is positive depends in part on the underlying portfolio. For, a portfolio with poor credit quality customers, for example, the standardized approach might be better from a pure RWA point of view. The move from the IRB approach back to the standardized approach is an option that may run counter to the regulators’ expectations, as Basel III includes several measures to reduce reliance on external ratings.

Banks not currently using an internal model for market risk should consider switching to a more sophisticated approach, as this often leads to a significantly lower RWA compared to the standardized approach. Internal models can allow sophisticated optimization methods for Value at Risk (VaR) such as marginal VaR. In addition, internal models can lead to a better understanding and risk management of the bank’s own portfolio.

2. The models and methods for calculating risk parameters are another lever for RWA optimization.

For credit risk this refers to the models and methods used for calculating the probability of default (PD), loss given default (LGD) and exposure at default (EAD) including the estimation of credit conversion factors (CCF) which have often been within the scope of past RWA optimization projects. Accenture’s experience indicates that the LGD and CCF estimation is often not optimal in the context of RWA optimization; for instance, lack of data availability and poor data quality can lead to high LGD and CCF values driving up regulatory capital requirements. Some banks have also reduced the complexity of their models to avoid achieving greater accuracy at the expense of higher RWAs.

With Basel III and the consultative document “Fundamental Review of the Trading Book” published by the Basel Committee on Banking Supervision (BCBS), market risk models and methods are now part of the focus of many Basel III RWA optimization projects. This review follows the revisions to the market risk framework in July 2009 (“Basel II.5”) which did not fully address the shortcomings of the Basel II framework. Key elements of the proposals are: A more objective boundary between the trading book and the banking book to reduce regulatory arbitrage; moving from value at risk to expected shortfall; stress-based calibration of models; incorporating market illiquidity risk as well as measures to reduce model risk in the internal models-based approach (by strengthening requirements for defining the scope of portfolios and strengthening the internal model standards) and a revised, more risk-sensitive standardized approach.

2.2.2 Processes

3. Risk management processes are levers which have often not received sufficient attention in past RWA optimization projects, as some of these projects focused on quick wins and easy-to-implement measures such as the optimization of calculation engines.

However, experience indicates that there is a perceived need to verify sustainability of process improvements by monitoring them, including the collateral re-evaluation process and the rating process. This lever can become more important, not only due to higher capital requirements but also from a cost perspective. RWA optimization projects can benefit from a holistic view of the processes, and from taking front office processes into consideration. One example would be increasing the responsibility of customer managers for their clients’ RWA by providing information about the risk weight and RWA consumption of credit applications relative to benchmarks. If these values are outside a defined range, additional RWA reduction measures could be requested for approvals.

One approach is to increase collateral while reducing the complexity and the latitude given customer representatives by the development of a relatively simple collateral handbook and system support, including check boxes for both quantitative and qualitative criteria. Another example is the optimization of RWA reporting, including the visualization of RWA consumption and development for different products, portfolios or business lines.
2.2.3 Counterparty Credit Risk (CCR)

4. The new capital requirements within counterparty credit risk are a key RWA driver of Basel III. The requirements and their impact depend, in part, on the approaches and models used by banks, as some of the requirements refer only to the Internal Model Method (IMM), for instance the stressed calibration of the Effective Expected Positive Exposure (EEPE).

Others, such as the CVA capital charge, affect many banks, no matter which approach is used. Within the IMM there can be several challenges which influence the RWA, ranging from sufficient coverage of the relevant product types by the IMM to effective collateral management (especially in times of volatile markets) to correct mapping of transactions and collaterals to netting/margining sets.

5. In addition to the default risk capital requirements for CCR, Basel III introduces an additional capital charge (the Credit Valuation Adjustment or CVA) that covers the risk of mark-to-market losses on the expected counterparty risk to OTC derivatives; it does not refer to centrally cleared or defaulted transactions.

There are two different approaches which can be used for the calculation of the CVA capital charge. Banks with IMM approval for CCR risk, and approval to use the market risk internal models approach for the specific-interest rate risk of bonds must calculate the additional capital charge by modeling the impact of changes in the counterparty’s credit spread on the CVAs of all OTC derivatives using the internal VaR model. Other banks must calculate a standardized CVA capital charge. Within this method own funds requirement, portfolio levels have to be calculated using the given formula.

An internal Accenture CVA impulse survey conducted in Germany, Switzerland and Austria in mid-2012 uncovered the following:

- The CVA capital charge is the main Basel III driver for the RWA increase leading often to a rise of the total CCR capital requirements by about 100%.9
- Only the largest banks use the advanced CVA approach, which does not always lead to significantly lower RWAs compared to the standard CVA approach. The difference between the approaches varies considerably between banks. Often the economic point of view is decisive in using the more sophisticated approach.
- The impact of the CVA capital charge on profitability can differ considerably between banks. Some major banks are already restructuring their portfolios to reduce the CVA impact while others are planning to do so. Other, smaller banks currently focus on increasing hedging and collaterals.
- For many major banks, CVA data quality has a high priority from a regulatory as well as an economic perspective.
- One of the key challenges is regulatory uncertainty, as most banks expect further changes to the current CVA requirements.

To reduce the RWA impact some banks are considering and already implementing different measures including:

Maximizing utilization of netting and collaterals. Due to the increased impact of non-netted or collateralized exposures, one area of concentration is on increasing the use of collateral for derivatives transactions whenever possible. This refers in particular to new transactions, but can also have significant impact upon already existing contracts, thus justifying additional efforts to renegotiate these contracts.

Reducing maturity of OTC derivatives/usage of break clauses. The maturity of transactions is one of the main drivers of the CVA capital charge, and therefore measures to reduce the effective maturity of transactions are often given a high priority. One direct approach is the use of unconditional break clauses which are often used in the course of the limit system. The break clause should specify that the bank may cancel the transaction at an identified date without particular conditions, meaning the break clause would not be linked to changes in the rating of the counterparty, the economic situation or other events not controlled by the bank. If these requirements are met, the bank may use the date of the first break clause as the effective maturity instead of the transaction, instead of the actual maturity instead of the transaction.

9. It should be noted that the indicated increase in the capital requirements dates to the completion of the survey. As banks are currently considering/implementing RWA optimization measures, the figures may have changed.
An additional method to reduce the effective maturity is based on the calculation of the CVA charge in the standardized approach. This takes into account the maturity of the counterparty which can be averaged across its transactions. Many banks are currently calculating CVA on transaction level (based on the transaction maturity) and aggregate the CVA on counterparty level in a second step. Better outcomes might be achieved by first averaging the maturity across the different transactions of the counterparty and then calculating the CVA on the counterparty level.

**Exposure classes which are exempted of the CVA charge:** Although the regulations are not final yet (see, for instance, regional implementation of Basel III requirements in the EU) there are several exposure classes which might be excluded from the CVA capital charge. The identification of these classes (such as transactions with small non-financial firms) and the implementation of additional requirements (for example, confirming the business need of a transaction) is another possible approach to minimize the RWA effects. Experience shows a reduction of more than 50 percent of the total CVA capital charge for certain global banks if transactions concluded with non-financial counterparties to reduce the risk of the underlying activity would be excluded from the CVA capital charge.

**Improving data quality** The CVA rules create additional requirements for data collection, processing and assurance. This can be especially important if the CVA figures are used not only for reporting purposes but also for active management and pricing of derivative transactions, as for example, data quality issues might lead to an erroneous allocation of costs. We have seen poor data quality – resulting from input systems or from the process chain as when unilateral CSA agreements are not properly processed – lead to significantly higher CVA capital charges. Examples for reducing the CVA capital charge by improving data quality include, depending upon the approach used: an adequate and correct gathering of netting (ISDA) and collateral (CSA) data; sufficient history of market data; timely information of credit events and/or defaults; reconciliation of counterparty reference data; and data cleansing regarding outdated ratings.

In addition to the aforementioned RWA reduction measures, banks should consider integrating the CVA capital charge into the pricing of derivatives. Currently, the CVA capital charge is often not included in the pricing. This might lead to arranging a transaction with a low or even negative margin considering the new requirement, with the increased capital costs not covered.

6. An optimization measure to reduce the negative impact of the CVA capital charge is central clearing or clearing through central counterparties (CCPs).

In this context dependency with other regulations should be considered, as the G20’s reform package to reduce the systemic risk of OTC derivatives requires that all standardized OTC derivatives should be traded on exchanges or electronic platforms, as appropriate. The G20 also requires that all standardized OTC derivatives should be cleared through CCPs and that OTC derivative contracts should be reported to trade repositories. In the EU these requirements are implemented through the European Market Infrastructure Regulation (EMIR). Non-centrally cleared OTC derivatives should be subject to higher capital requirements (CVA).10

Banks can centrally clear transactions either as a clearing member (direct participant) or as a client (clearing through clearing member) though there are strict requirements to become a clearing member. Depending on the role of the bank, different risk weights apply.11 It should also be noted that CCPs currently offer the possibility for central clearing only for selected products.

For RWA optimization, future as well as existing transactions can be cleared centrally by negotiating with the counterparties to cancel the existing transaction and conclude a new one with the same conditions, clearing it centrally (known as back loading). This can lead not only to a reduction of the Basel III capital requirements, it can also prevent a potential CVA capital charge increase due to rating changes of the counterparty.

7. Basel III increases the risk weights on exposures to financial institutions relative to the non-financial corporate sector in the IRB approach by increasing the correlation coefficient by 25 percent for exposures to large regulated financial entities and to all unregulated financial entities (Assets Value Correlation or AVC).12

Depending on the probability of default (PD) of the counterparty, this can lead to an increase of RWA by approximately 20 to 35 percent. Basel III RWA optimization projects can benefit from evaluating the possibility of reducing the relevant counterparties or their exposure, focusing on those with poor credit quality. One of the challenges in doing this is the availability of data such as consolidated balance sheet information to identify the relevant entities.

12. Basel III (BCBS) considers institutions as “large” if the total assets, on an individual firm level or on a consolidated group level, are greater than or equal to US $ 100 billion. The CRR includes a threshold of EUR 70 billion.
2.2.4 Business Model/Portfolio Optimization

8. To fulfill the new regulatory requirements of Basel III, especially the increased capital and liquidity requirements, and to restore profitability, banks may need to adjust their business models.

The extent of the adjustment for each bank may depend upon, among other factors, their current business model (as the impact of Basel III varies by different business lines), the overall health of the bank, and the derived risk and funding strategy within the new framework. Recently, many banks have taken actions such as shrinking their capital markets businesses or reducing portfolios with high RWA consumption, such as structured credit portfolios.

Other measures might include a stronger focus on specific customer segments such as retail and small and mid-sized enterprises, an adjustment of the products and services offered, or optimization of the group structure to reflect the economic and political conditions in the different geographies. This could mean reducing direct and indirect holdings of financial entities or selling off group entities and minority interests. In reviewing these possibilities, it is important to consider not only the RWA but also the possible impact on profitability.

9. Basel III RWA optimization measures could include a quantitative and qualitative adjustment of the portfolio structure.

Certain portfolios such as trading assets might have a significantly lower or even negative return on equity under Basel III so that it can be beneficial to analyze a reduction or run-down of the investment portfolios or of the asset-backed securities. The quality of the portfolio can also be improved to reduce the RWA, for instance, by reducing the number of high-risk customers (those with a high probability of default) in the banking portfolios. Deepening the impact on other Basel III topics, above all the liquidity ratios, should be taken into account along with other dependencies. Finally, banks should consider implementing an active RWA portfolio management program.

10. Measures to optimize the client structure could include focusing on customers with good credit quality (low PD) or on customer segments which benefit from the new requirements.

In this context, it should be noted that a reduction of the risk weights of small and medium sized entities in the IRB approach is currently under discussion within the Basel III implementation in the EU. This could reduce the RWA of such positions by about 25 percent from Basel II through the introduction of a new scaling factor in the IRB risk weight function. One prerequisite may be that the banks have the relevant data to classify a customer as an SME according to the revised definition.

11. Several banks have started to analyze their product structure, taking into account the impact of Basel III and other regulations such as IFRS, and to derive RWA optimization measures to reduce the regulatory impact.

In doing so, banks should consider the relative RWA impact, that is, the relative RWA increase of a product on a standalone basis, and the absolute RWA increase, that is, the absolute RWA increase in a portfolio context. Possible RWA optimization measures refer primarily to derivatives exposures such as the reduction of maturities of OTC derivatives. In addition to new transactions, the possibility of changing existing transactions through increasing collateral or central clearing should also be taken into consideration.

In optimizing the product structure the Basel III liquidity ratios – liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) – play an important role and should be considered. Many banks are currently taking different actions to increase LCR and NSFR, including moving to long-term deposits and reducing short-term funding. Adequate pricing might also be implemented to counteract the impact of the Basel III liquidity ratios.

2.2.5 Collateral Management

12. Optimization measures in the area of credit risk collateral management have been one of the key focus topics of some Basel II RWA optimization projects covering, among other elements, the corresponding processes in the front-, middle- and back-office as well as aspects of data quality.

Measures taken by financial institutions to improve processes include the periodical re-evaluation of collateral. In many cases, collateral was not considered eligible in the calculation engine due to the non-fulfillment of qualitative criteria. Improving data quality of collateral in the source systems and the central data pool can lead to a further significant RWA reduction. A “validation layer” can help to analyze the collateral trail from the source system to the calculation engine and highlight a potential loss of principally eligible collateral. Due to the increased default rates in certain regions and segments as well as the ongoing capital pressure, banks should consider analyzing whether all optimization possibilities have been realized in the past and whether the implemented or optimized processes are functioning well.

13. The use of collateral and hedging for risk mitigation of market risk has been common practice for many years.

Derivatives are often used to reduce the different types of market risk, such as foreign exchange (FX) risk. In light of the increased volatility in the financial markets as seen in share prices and exchange rates, this can still be an important part of risk and therefore of RWA reduction. At the moment, the review of the trading book becomes the focus of attention for RWA optimization considerations, e.g., the optimization of models considering the new requirements (highlighted in section 2.2.1). A further question is how to deal with measures currently used to optimize the RWA but which might not be feasible in the future, for instance the reduction of market risk between the trading and banking book through the use of arbitrage.
2.2.6 IT and Data Quality

14. A properly organized IT function can deliver RWA optimization.

Basel III optimization measures might require improvements to IT including new interfaces or new data fields for identifying relevant counterparties and transactions. Good IT systems are necessary for active, predictive RWA management.

15. Poor data quality, on the other hand, can lead to a significantly higher RWA than needed. Because of increased regulatory pressure, RWA optimization measures focusing on the improvement of data quality are often gaining in importance.

In making IT and data improvements, banks should take into consideration not only the new Basel III topics but also older concerns such as credit risk, as not all potential upgrades have been made. Other measures for consideration might include:

- **Unification of data formats for risk and finance data.** Due to the evolution of data requirements and the ability of banks’ IT systems to manage data there might be disparities among the data formats of different units or even within single units. This can lead to deficiencies in general data availability, with data used by one unit often not known by, or available to, other units. In such cases, collateral data in the credit system might not be available for application within the trading system to reduce RWA. Another potential problem is the increase in the data management effort due to the need to transform data from one unit to meet the requirements of another unit. Such activity can also be associated with possible errors in the transformation process.

- **Clear responsibility for data ownership.** Defining clear responsibilities for the ownership of risk and finance data fosters an environment in which new data and modifications of data can be controlled and supervised by a dedicated unit.

Thus the implications for the data recipients often can be minimized, which can be important since, based on new or changed regulations, specific collateral is generally considered as non-eligible although such collateral might still be used for risk mitigation by other units.

**Availability of RWA/risk data for pricing in the front office.** Many banks do not automatically use their risk data for pricing purposes in the front office units, and those that use such data often work with approximations instead of directly calculated risk costs. This is often due to missing risk data in the front office units. This is not only a RWA optimization issue, but it can also influence a bank’s profitability. By using risk data for decisions in the front office, RWA could be reduced and profitability increased.

As described, there are several measures banks can take in an effort to optimize RWA. Some of them are specific to Basel III while others are not and might have been previously considered. For these measures, it may be necessary to analyze whether all possibilities have been taken into consideration and if the planned RWA effect has been realized.

Whatever actions banks are considering to help reduce the regulatory and economic RWA impact, they should consider implementing – with deep involvement of senior management – a new framework which can enable them to maintain focus on RWAs and allow for an active steering of this key metric. This framework could include:

- Better understanding of the dynamics and key drivers;
- Reporting capabilities both internal (within the bank) and external (to regulators and investors);
- Full integration into the annual planning process;
- Mechanisms to monitor and control the evolution of RWAs on an ongoing basis;
- Forecasting and simulation processes; and
- Support from robust analytical capabilities.

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2.3 Challenges to Basel III
RWA Optimization

The implementation of Basel III RWA optimization measures is associated with a number of challenges, including:

Business challenges. Basel III and related RWA optimization measures can challenge the business model and the funding strategy of banks. Senior management may be called upon to make decisions on potential adjustments and prioritize them, considering not only the impact on RWA but also on the bank’s profitability. These might include reducing the trading portfolio; adjusting product portfolios; or placing a stronger focus on certain customer segments or regions. These are often business-driven decisions to determine how the business model of the bank should look under the new regulatory framework. Another important consideration is the inclusion of higher capital and liquidity costs in product pricing.

Organizational challenges. Changes to the business model might also affect the organizational structure, as some units might be reduced or merged with others while new units are established. Several banks are establishing, for instance, a CVA desk which is responsible for the valuation and pricing of derivatives. In this context clearly defined responsibilities can be important. Does the CVA desk have the ultimate ownership for the development of new methods and models or is approval required by the risk control unit or function? Another example is the implementation of a central unit responsible for managing the increasing complexity of risk and finance data. Additionally, the implementation of Basel III and RWA optimization measures may require coordination between the different units as well as within the group.

Beyond these concerns, the availability of resources – in quantitative and qualitative terms – can be an important challenge for a successful implementation. Qualified and dedicated resources are often required to keep up-to-date with all the regulatory changes and publications and to determine the correct actions for the bank. Training, as well as the transfer of knowledge and know-how within the organization is often key.

Functional challenges. Basel III and many RWA optimization measures are characterized by a high degree of complexity, which can be increased by the interdependencies between different areas and the impact on profitability. Currently the Basel framework is under review, in part to find a proper balance between the complexity of regulatory requirements and risk sensitivity.

Technical challenges. Many banks also face the challenge of implementing the new requirements in light of the aforementioned complexity, the short time available for implementation and regulatory uncertainties (for example, the final data requirements are not known as of today). As many banks expect further or changed requirements in the future a flexible IT infrastructure may be required. Finally, the shorter reporting periods can challenge the performance of the IT systems.

Data challenges. The requirements of Basel III and the interdependencies among the various matters under regulation lead also to increased complexity of data requirements, especially in the area of counterparty credit risk and the new liquidity ratios. Data availability, data completeness, data quality and data consistency can be critical for a successful implementation of Basel III and RWA optimization measures.

Regulatory challenges. One of the key challenges many banks are facing in Basel III implementation and RWA optimization projects is to deal with the regulatory uncertainty as it relates to implementing the requirements although the final regulations – the CRD IV package in Europe, for example – are not yet published. While several proposals are currently under discussion, depending on the final rules the Basel III impact on RWA may vary considerably. There are also many aspects which require finalization over the next few years. In the EU the European Banking Authority (EBA) is expected to publish binding technical standards during this time. Until these are released and a market standard is established banks are faced with the prospect of providing their own interpretations.
2.4 Going beyond compliance

As we have seen, Basel III RWA optimization is concerned with more than just regulation. We believe that banks should consider going beyond compliance in an effort to restore profitability and protect shareholder value while establishing the new capital and liquidity framework. Targeted implementations of optimization measures as well as active balance sheet management are key elements to offset at least part of the Basel III impact. Active balance sheet management can benefit from consideration of assets and liabilities as well as a geographical optimization of the balance sheet within the group. While many banks have already addressed their balance sheets, for instance by reducing the trading portfolio, there is often still room for further optimization through such measures as growing retail deposits or reducing short-term funding. Pricing can offer additional opportunities for improving profitability, as current pricing often does not fully reflect regulatory costs. It is also suggested that detailed actions be analyzed and implemented within the scope of Basel III RWA optimization projects.
3. How Accenture Can Help

The demands and challenges of Basel III implementation and associated measures to optimize RWA and restore profitability are numerous and complex, calling for an efficient and structured approach. In working with banking clients across the globe on their response to the Basel III requirements, Accenture uses a tested and target-oriented three-stage approach along with our inventory of dedicated tools. Our approach is modular, flexible and scalable and takes into account each client’s specific situation. This can allow not only for an efficient Basel III implementation but also for appropriate measures to mitigate the negative effects of Basel III on the bank.

The first stage is devoted to an analysis of the bank’s current situation, including a Basel III impact analysis, the definition of the target situation and the identification of the scale and focus of the project. Accenture has developed proprietary Basel III Diagnostic and RWA Optimization Tools with a modular set-up to help identify actions necessary to meet the requirements, optimize RWA and determine measures to restore profitability (see Figure 3).

In the second stage, based on the results of stage one, the bank typically establishes priorities for immediate action while planning for implementation. The planning process is designed to take the bank’s specific characteristics as well as its own strategic priorities into consideration. This stage also involves estimating the implementation effort and uses business cases to verify the measures needed in a detailed implementation plan (see Figure 3).

Stage one and two together build the Basel III RWA optimization preliminary review, which is target-oriented and can be conducted with the help of our dedicated tools, often within a few weeks, depending on the size and complexity of the bank’s business.

During the third stage, the plan is implemented, using project planning tools designed to identify and correct deviations from the project plan. With Accenture’s help the Basel III RWA optimization implementation can be effectively conducted by a dedicated team of functional and technical personnel with extensive project management experience in the risk and banking area, using our tested project management tools (see Figure 3). During the entire implementation of RWA optimization measures, efficient progress reporting is used to monitor and steer the predefined RWA relief target.

Our RWA Optimization approach is modular, flexible and scalable and takes into account the specific context of each client.
• With our extensive management experience we can analyze your as-is situation quickly, support you in your Basel III RWA impact analysis and define the target situation

• Our Basel III and RWA tools can identify gaps between the bank’s situation and the Basel III regulatory requirements and help you to identify measures to optimize RWA and restore profitability

• Based on the Stage 1 results we can support the derivation and prioritization of your action options

• Create an implementation plan that respects your priorities and focus

• The Effort Estimator can deliver a resilient estimate of the implementation effort

• Based on Business Cases we can help to validate and prioritize the measures in a detailed implementation plan

• The Accenture Delivery Method can support the planned implementation in terms of ‘time’, ‘budget’ and ‘quality’ parameters

• Project management tools, Risk and Issue Management, Progress Tracking and Status Reporting can identify deviations from the project plan and target achievement and initiate counteractive measures

• Established project management experience in the Basel and RWA optimization fields in functional, technical and process-related areas

Source: Accenture
4. Conclusion

The new Basel III requirements present major challenges to banks around the world involving their capital and liquidity requirements as well as their risk management. One of the key issues arising from the new capital framework is the optimization of RWA. Although RWA optimization is not a new topic it may be gaining in importance due to the increased capital requirements, the stricter definition of capital as well as the higher capital ratios within Basel III.

There are a number of levers which can be used in an effort to reduce the impact on RWA. It is important to note that Basel III RWA optimization may mean more than just fulfilling regulatory requirements; it can also help to restore profitability.

The implementation of Basel III and RWA optimization measures can also lead to changes in the business model and funding strategy of banks. Therefore, it can often represent more than a regulatory concern; it can be a core business concern with a regulatory trigger. A comprehensive, target-oriented implementation and monitoring program, as well as active, predictive RWA and balance sheet management can be essential to generating potential improvements in RWA and profitability.

Accenture works with banks in a number of areas to address Basel III and RWA optimization issues and help set priorities for the near, mid- and longer term. With our extensive experience across a wide variety of aspects of risk management, and long-time project management experience in Basel-related areas including functional, technical and process-related assignments, Accenture is well suited to help banks chart a course in the Basel III landscape.

Accenture brings to bear a wealth of highly experienced professionals, tested assets and tools to assist in identifying the gaps to effectively implement Basel III and related RWA optimization measures, in addressing risk and issue management, progress tracking and status reporting, in identifying deviations from the project plan, target achievements, and in initiating measures to get back on the path to completion.

We believe that the real challenge for banks will be to build upon the actions mandated by Basel III to create stronger capital and risk structures. Banks that meet and surpass the Basel III requirements may not return to levels of profitability experienced before the global financial crisis, but they can be in position to be well-prepared for the “new era” and achieve high performance within their industry.
References


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About Accenture Risk Management
Accenture Risk Management consulting services work with clients to create and implement integrated risk management capabilities designed to gain higher economic returns, improve shareholder value and increase stakeholder confidence.

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