We give you an overview of the latest Basel proposals.
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Preface
As part of its revisions to the existing Basel III framework the Basel committee of Banking Supervision (BCBS) has issued several publication and intends to completely redesign the framework for the treatment of securitization positions. The new framework mainly consists of new approaches to RWA calculation and the introduction of a new type of “Simple, Transparent and Comparable” securitization positions.

These changes were introduced by the publication of the “Revisions to the securitisation framework (BCBS303)” from December 2014 and the “Criteria for identifying simple, transparent and comparable securitisations (BCBS343)” from July 2015. Other papers targeting a combination of both concepts followed until in July 2016 the final paper “Revisions to the securitisation framework (BCBS374)” was published. While the RWA impact of this new regulatory agenda can be expected to be felt by all banks, regardless of size or business model, the Basel IV securitization framework will also incentivize banks to reassess its securitisation business and address and embed the results into its business model and business strategy.
The reasons for this once again major changes to the securitisation framework is derived not predominantly from the financial crises itself but also from experiences with the regulation targeting securitisation implemented in its aftermath. Some of the reasons are in line with those stated for other changes, some are specific to the securitization framework. Overall the BCBS states that it considers it inevitable to contribute to strengthen the capital standards for originators, sponsors and investors into securitisations in the banking book.

The major weaknesses identified within the existing securitisation regime were a mechanistic reliance on external ratings when determining capital requirements, insufficient risk-sensitivity due to the negligence of certain risk drivers and the existence of cliff-effects with pro-cyclical impact. So the goal was to enhance risk sensitivity, recalibrate risks in a more prudent way, improve consistency with the underlying credit risk framework and enhance simplicity. All adjustments made in the final framework, including the criteria for simple, transparent and comparable securitisations can be mapped to these goals.
The BCBS has announced that the new securitization framework will enter into force as of the beginning of 2018.

PwC is constantly developing solution sets, tools and supporting material to inform and prepare our clients on the upcoming regulatory changes.

This brochure is designed to provide you with an overview of the individual topics in the context of Basel IV. For further information on single topics, separate documents have been prepared and will be updated regularly.

Kind regards,

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Global Basel IV Leader

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Global Basel IV Standardised Approaches Workstream Leader
To address weaknesses such as mechanistic reliance on external ratings, lack of risk sensitivity, cliff effects and insufficient capital for certain exposures, the BCBS finalised the securitisation framework in July 2016, which will come into effect in January 2018.

The Committee also incorporated the criteria for “Simple, Transparent and Comparable” (STC) securitisations and their capital treatment into the revised framework. Compliance with the expanded set of STC criteria provides additional confidence in the performance of the transactions and a reduction in the capital charges for such securitisations is suggested.
### Fig. 1 Areas of revision by the BCBS

<table>
<thead>
<tr>
<th>Capital requirements</th>
<th>Credit risk</th>
<th>Securitisation</th>
<th>Counterparty credit risk</th>
<th>Market risk</th>
<th>Operational risk</th>
<th>CVA risk</th>
<th>Interest rate risk</th>
<th>Other topics</th>
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<td>Capital floors</td>
<td>SA</td>
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<td>Minimum capital requirements for market risk</td>
<td>Standardised Measurement Approach for operational risk</td>
<td>Review of the CVA risk framework</td>
<td>Interest rate risk in the banking book</td>
<td>Large exposures</td>
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<td>(BCBS 306)</td>
<td>(BCBS 307)</td>
<td>(BCBS 303)</td>
<td>(BCBS 279)</td>
<td>(BCBS 305)</td>
<td>(BCBS 291)</td>
<td>(BCBS 325)</td>
<td>(BCBS 319)</td>
<td>(BCBS 283)</td>
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<tr>
<td>IRBA</td>
<td>(BCBS 362)</td>
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<td>(BCBS 352)</td>
<td>(BCBS 355)</td>
<td>(BCBS 362)</td>
<td>(BCBS 368)</td>
<td></td>
<td>Disclosure</td>
</tr>
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<td>(BCBS 347)</td>
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<td>(BCBS 309)</td>
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<td>(BCBS 368)</td>
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<td>Step-in risk</td>
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<td>(BCBS 349)</td>
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<td>(BCBS 368)</td>
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</tbody>
</table>
Revisions to the securitisation framework
**Objectives and Improvements**

**Fig. 2 Overview of Objectives and Improvements**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduce mechanistic reliance on external ratings</td>
<td>• Implementation of three new approaches (SEC-IRBA, SEC-ERBA, SEC-SA)</td>
</tr>
<tr>
<td>2. Enhanced risk sensitivity</td>
<td>• Revised hierarchy of the proposed approaches</td>
</tr>
<tr>
<td>3. Reduction of existing cliff effects</td>
<td>• A new capital framework for “Simple, Transparent, Comparable (STC)” – securitisations</td>
</tr>
<tr>
<td>4. Increase risk weight for highly-rated sec. exposure</td>
<td>• Introduction of a 15% risk-weight floor for securitisations, 10% for STC securitisations and 100% for resecuritisations</td>
</tr>
<tr>
<td>5. Reduce risk weights for low rated senior sec. exposure</td>
<td>• Consideration of further risk drivers such as tranche maturity and thickness</td>
</tr>
<tr>
<td></td>
<td>• For resecuritisations the only approach applicable is the revised standard approach</td>
</tr>
<tr>
<td></td>
<td>• No explicit consideration of granularity when using external ratings</td>
</tr>
</tbody>
</table>
New Hierarchy of Approaches

Fig. 3 Overview: Hierarchy of Approaches

- SEC-Internal Ratings Based Approach (SEC-IRBA)
- SEC-External Ratings Based Approach (SEC-ERBA)
- SEC-Standardised Approach (SEC-SA)
- RW 1250%
Internal Ratings-Based Approach (SEC-IRBA)

Fig. 4 SEC-IRBA: Key Points

SEC-Internal Ratings Based Approach (SEC-IRBA)

- Implementation of the Simplified Supervisory Formula Approach (SSFA)
- A key input factor is the IRB capital charge of the underlying pool ($K_{IRB}$)
- Consideration of tranche maturity ($M_T$) and thickness ($T=D-A$)
- Introduction of the supervisory parameter ($p$)
- Input parameter should be available for at least 95% of the securitized exposures

$$RW = K_{SSFA(K_{IRB})} \cdot 12.5$$

\[
RW = \left[ \left( \frac{K_{IRB} - A}{D - A} \right) \cdot 12.5 \right] + \left[ \left( \frac{D - K_{IRB}}{D - A} \right) \cdot 12.5 \cdot K_{SSFA(K_{IRB})} \right]
\]

$$p = \max[0.3; (A + B \cdot (1/N) + C \cdot K_{IRB} + D \cdot LGD + E \cdot M_T) \cdot x]$$

$$K_{SSFA(K_{IRB})} = \frac{e^{a \cdot u} - e^{a \cdot l}}{a(u - l)}$$

$u = D - K_{IRB}$

$a = -\left(1/(p \cdot K_{IRB})\right)$

$l = \max(A - K_{IRB}; 0)$

$x = 0.5$ for STC securitizations

$x = 1$ for non-STC securitizations

$A, B, C, D, E$: Technical Parameters for calibration of $p$ (dependent on granularity of portfolio)
External Ratings-Based Approach (SEC-ERBA)

SEC-External Ratings Based Approach

- As long as external ratings are permitted in the respective jurisdiction
- Consideration of tranche maturity ($M_T$), seniority and thickness ($T$)
- Granularity is not considered explicitly any more, since external ratings already reflect it
- Risk weights are determined based on a look-up table
- Separate mapping tables for short-term and long-term positions

\[
RW_{Tranche} = \begin{cases} 
RW 	ext{ for } M_T=1 & \text{if } 1 \leq M_T \leq 5 \\
RW 	ext{ for } M_T=5 & \text{if } M_T > 5 
\end{cases}
\]

\[
RW_{Tranche} = RW_{Tranche \ MT \ 1 \over MT \ 5} \text{ after adjustment of maturities } >1 \text{ and } <5 \text{ years through linear interpolation}
\]

For senior tranches: \[RW = RW_{Tranche}\]

For non-senior tranches: \[RW = [RW_{Tranche} \ast (1 - \min(T; 50\%))]

Securitisation Standardised Approach (SEC-SA)

Fig. 6 SEC-SA: Key Points

SEC-Standardised Approach

- Implementation of the Simplified Supervisory Formula Approach (SSFA)
- The only approach permitted for resecuritisations
- Consideration of tranche maturity ($M_T$)
- $p=1$ for non-STC securitisations, $p=1,5$ for resecuritisations, $p=0,5$ for STC securitisations
- Input parameter should be available for at least 95% of the securitised exposures

\[
RW = K_{SSFA(K_A)} \cdot 12,5
\]

\[
RW = \left[ \left( \frac{K_A - A}{D - A} \right) \cdot 12,5 \right] + \left[ \left( \frac{D - K_A}{D - A} \right) \cdot 12,5 \cdot K_{SSFA(K_A)} \right]
\]

\[
K_{SSFA(K_A)} = \left( e^{a \cdot u} - e^{a \cdot l} \right)/a(u - l)
\]

\[
K_A = (1 - W) \cdot K_{SA} + W \cdot 0,5
\]

A, B, C, D, E: Technical Parameters for calibration of $p$ (dependent on granularity of portfolio)
Simple, transparent and comparable (STC) securitisations
Objectives of STC Securitisations

Completion of securitization framework by adding specific own funds requirements for STC securitisations

1. Help all parties to a securitization in evaluating its risks & returns by comparing different products within an asset class

2. Foster simplicity by setting incentives to use STC-securitisations (although RWA expected to rise for STC as well)

3. Assist investors in undertaking due diligences without replacing the performance of due diligences

4. Protect investors from risks arising from inadequate “Originate-to-distribute”-business models

5. Strike an appropriate balance between risk sensitivity, simplicity and comparability
**Criteria for STC Securitisations**

**Fig. 7 Overview of STC-Criteria**

<table>
<thead>
<tr>
<th>STC Criteria</th>
<th>Simple</th>
<th>Transparent</th>
<th>Comparable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>• Legal Enforceability of asset sale</td>
<td>• Access to statistical/historical data especially regarding defaults and price development</td>
<td>• Risk retention</td>
</tr>
<tr>
<td></td>
<td>• No other encumbrance</td>
<td>• External verification of the sample</td>
<td>• Mitigation of non-credit risk (i.e. currency and interest rate risk)</td>
</tr>
<tr>
<td></td>
<td>• Clear availability criteria</td>
<td>• Liability-cashflow-model before and after pricing (ongoing)</td>
<td>• At-arm’s length interest rates</td>
</tr>
<tr>
<td></td>
<td>• No active portfolio management</td>
<td>• Joint compliance of Originator, Sponsor, SSPE with transparency requirements (disclosure)</td>
<td>• No retention of substantial currency amounts in SPV</td>
</tr>
<tr>
<td></td>
<td>• Homogeneity</td>
<td></td>
<td>• Prepayment events in revolving structures</td>
</tr>
<tr>
<td></td>
<td>• No resecuritization</td>
<td></td>
<td>• Definitions, remedies and actions relating to delinquency</td>
</tr>
<tr>
<td></td>
<td>• No defaulted positions</td>
<td></td>
<td>• Rules for conflict settlement</td>
</tr>
<tr>
<td></td>
<td>• At least on payment took place</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cash-flows do not substantially depend on sale of securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Positions originated by the originator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Capital Treatment for STC Securitisations**

**Fig. 8 Overview of Changes to RWA calculation**

**SEC-Internal Ratings Based Approach**

The supervisory parameter $p$ depends on factor $x$ which is fixed at 0.5

$$p = \max[0,3; (A + B \cdot \frac{1}{N}) + C \cdot K_{IRB} + D \cdot LGD + E \cdot M_T \cdot x]$$

**SEC-External Ratings Based Approach**

10% floor for risk weights for senior exposures and in general lower risk weights compared to the consultation phase.

**SEC-Standardised Approach**

The supervisory parameter $p$ fixed at 0.5
Challenges & Impacts
Conclusion

- Significant increase of risk weights and capital requirements through the establishment of the new approaches.
- Incentives for STC securitisations through preferential capital treatment. Yet, new risk weights are still higher compared to those under CRR.
- Increased data requirements compared to the current approaches.
The Solution: 
PwC’s SECCCT
The Solution: PwC’s SECCT

SECCT – SECuritisation Calculator Tool

- PwC has developed an Access-based tool to calculate capital requirements using the current and the new approaches also for STC securitisations
- Test calculations for SEC-IRBA, SEC-ERBA, SEC-SA and EU propositions
- Integration of graphical results in the project documentation and presentation
- Extensive practical trials of the tool in various preliminary studies
Our Expertise
Whether regarding the Basel Committee, EU-regulation or national legislation – we use our established know-how of the analysis and implementation of new supervisory regulation to provide our clients with high-quality services. Embedded into the international PwC network, we have access to the extensive knowledge of our experts around the world.

PwC’s Global Basel IV Initiative was established to support you in all aspects of getting compliant with the new regulatory requirements to the securitisation framework.

PwC can draw on long lasting experience of implementing new regulatory requirements by supporting a number of banks in completing quantitative impact studies prior to the implementation of Basel II and Basel III and by the functional and technical implementation of the final regulations. The PwC-tools used during the QIS are flexible and will be updated automatically in case of new consultations by the Basel Committee.
About us

PwC helps organisations and individuals create the value they’re looking for. We’re a network of firms in 157 countries with more than 195,000 people who are committed to delivering quality in assurance, tax and advisory services. Tell us what matters to you and find out more by visiting us at www.pwc.com. Learn more about PwC by following us online: @PwC_LLP, YouTube, LinkedIn, Facebook and Google+.
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