World Council

**BASEL COMMITTEE ON BANKING SUPERVISION**
***Consultative Document***
***Simplified Alternative to the Standardized Approach to Market Risk Capital Requirements***

## *EXECUTIVE SUMMARY*

The Basel Committee on Banking Supervision has proposed a simplified alternative to the market standardized approach in an effort to facilitate adoption of the Basel Committee's standard for minimum capital requirements for market risk for banks and credit unions that are not large and internationally active.

The proposal in short provides for an operationally simpler (and less granular) method of calculating market risk capital in exchange for higher capital requirements and less favorable risk weights.

Use of the proposed "Simplified Alternative" would be subject to national supervisory approval and oversight, and available only to smaller, less complex banks or credit unions. The proposal includes a simplified version of the sensitivities-based method ("Standardized Approach") which is the primary component of the Standardized Approach. The Basel Committee last updated the standardized approach to market risk in January of 2016[1].

The simplifications include the following:

1. Removal of the capital requirements for "vega" and "curvature" risks[2];
2. Simplification of the basis risk calculation; and
3. Reduction in risk factor granularity and the correlation scenarios to be applied in the associated calculations.

For banks and credit unions that adopt the Simplified Alternative or the normal Standardized Approach, the market risk capital requirement continues to be the sum of three components:

1. The risk charges under the Simplified Alternative (as proposed in the consultative document);
2. The default risk charge (unchanged and calculated under the 2016 standard); and
3. The residual risk add-on (unchanged and calculated under the 2016 standard).

A copy of the Consultative Document can be found here.

**Please provide comments to Andy Price, Regulatory Counsel at aprice@woccu.org by *September 21, 2017*.**



[1] http://www.bis.org/bcbs/publ/d352.pdf

[2] The Standardized Approach requires the calculation of 3 different types of risk analysis (primarily for derivatives positions): Delta, Vega, and Curvature. **Delta** is a risk measure based on sensitivities of a bank's trading book positions to regulatory delta risk factors. **Vega** is an options sensitivity to the volatility of the underlying asset. **Curvature** a risk measure which captures the incremental risk not captured by the delta risk of price changes in the value of an option. The Simplified Alternative only requires the **Delta** component to be calculated and ignores the Vega and Curvature.

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***IN-DEPTH ANALYSIS***

The proposed simplified alternative overall reduces the overall granularity needed to perform the calculations, however, the risk weights and correlations are generally less favorable under the Simplified Alternative.

## I. Applicability:

In order to use the Simplified Alternative, the bank/credit union must meet the following criteria:

- Must not be a Global Systemically Important Bank (G-SIB) or Domestic Systemically Important Bank (D-SIB);
- Must not be engaged in writing options;
- Must not use the internal models approach for any of its trading desks;
- Under €1 billion in assets;
- Total market risk-weighted assets (using Simplified Alternative/total risk-weighted assets) are less than 5%;
- Must not hold any correlation trading positions;
- [The aggregate notional amount of non-centrally cleared derivatives (including both banking book and trading book positions) must not exceed [€X billion].]; and
- Supervisory Authorities retain the ability to mandate the full Standardized Approach notwithstanding the above criteria for complex banks/credit unions or banks/credit unions with a sizeable risk in a particular category.

**What this means:** Only smaller, less complex banks/credit unions will be able to take advantage of the simplified approach

## II. Framework:

**Simplified Alternative – Risk Capital Overall Approach**

The Consultative Document provides the aggregation formula for calculating capital requirements by assigning risk to particular buckets as well as providing the formula for calculating capital requirements across buckets for each risk class covered under the delta risk framework.

There are a set of prescribed risk factors with liabilities included at their absolute value. The net sensitivities to each risk factor within a risk class are multiplied by a respective risk weight, with these weighted sensitivities aggregated by prescribed formula using correlations. The categories under the framework are listed below and compare the Simplified Alternative to the requirements of the Standardized Approach as follows:

### a. Interest Rate Risk (Delta GIRR)

The Simplified Alternative sets the risk weights as follows:

220. The risk weights are set as follows:

| Risk factor | Risk weight |
|---|---|
| ≤ 5 years | 5% |
| > 5 years | 5% |

221. A risk weight of 3% is set for the inflation risk factor and the cross currency basis risk factors.

The Standardized Approach risk weights run around approximately 1.5%.

**What this means:** This will likely result in a higher capital charge under the Simplified Alternative as the Standardized Approach sets rates that run around 1.5%.

### b. Credit Spread Risk (CSR – Securitized and Non-Securitized)

The Simplified Alternative provides less granular buckets for assigning sensitivities or risk exposures. There are only 6 buckets compared to the 16 buckets for the Standardized Approach. However, the risk weights and correlations are less favorable in the Simplified Alternative than in the Standardized Approach.

*Buckets*

226. Sensitivities or risk exposures should first be assigned to a bucket according to the following table:

| Bucket number | Credit quality | Sector |
|---|---|---|
| 1 | Investment grade (IG) | Sovereigns including central banks, multilateral development banks<br>Local government, government-backed non-financials, education, public administration |
| 2 | | Financials including government-backed financials |
| 3 | | Other sector |
| 4 | High yield (HY) & non-rated (NR) | Sovereigns including central banks, multilateral development banks<br>Local government, government-backed non-financials, education, public administration |
| 5 | | Financials including government-backed financials |
| 6 | | Other sector |

**What this means:** The tradeoff here is that will less items to track for purposes of calculating the 6 buckets of Credit Spread Risk (i.e. less IT infrastructure, processes, procedures, time, etc…) compared to the 16 buckets under the Standardized Approach, which will be a savings, yet there will be a higher capital charge due to the less favorable risk weights under the Simplified Alternative.

### c. Equity Risk

The Equity Risk Buckets under the Simplified Alternative contain only 6 buckets versus the 11 contained in the Standardized Approach. However, the risk weights are higher and the correlations lower meaning a likely higher capital charge.

*Buckets*

237. Sensitivities should first be assigned to a bucket as defined in the following table:

| Bucket number | Market cap | Economy | Sector |
|---|---|---|---|
| 1 | Large | Emerging market economy | Financials including government-backed financials, real estate activities, technology |
| 2 | | | Other sector |
| 3 | | Advanced economy | Financials including government-backed financials, real estate activities, technology |
| 4 | | | Other sector |
| 5 | Small | Emerging market economy | All sectors |
| 6 | | Advanced economy | All sectors |

**What this means:** The tradeoff here is that will less items to track for purposes of calculating the 6 buckets of Equity Risk (i.e. less IT infrastructure, processes, procedures, time, etc…) which will be a savings, yet there will be a higher capital charge.

### d. Commodity Risk

Under the Simplified Alternative, the number of buckets remains equal (11) to the Standardized Approach, however the risk weights are about 10% higher with the Simplified Alternative approach.

The Simplified Alternative commodity risk weights:

*Risk weights*

247. The risk weights depend on the commodity bucket (which group several commodities, eg the precious metals bucket includes silver and gold) as set out in the following table:

| Bucket | Commodity category | Risk weight |
|---|---|---|
| 1 | Solid combustibles (eg coal, charcoal, wood, nuclear fuel) | 40% |
| 2 | Liquid combustibles (eg crude oil, heating oil, gasoline, diesel, aviation fuel, bioethanol) | 45% |
| 3 | Electricity and carbon trading | 70% |
| 4 | Freight | 90% |
| 5 | Non-precious metals | 50% |
| 6 | Gaseous combustibles (eg natural gas, methane, city gas) | 55% |
| 7 | Precious metals (including gold) | 30% |
| 8 | Grains & oilseed | 45% |
| 9 | Livestock & dairy | 35% |
| 10 | Softs and other agriculturals | 45% |
| 11 | Other commodity | 60% |

The Standardized Approach commodity risk weights:

*Risk weights*

115. The risk weights depend on the commodity bucket (which group individual commodities by common characteristics) as set out in the following table:

| Bucket | Commodity bucket | Examples of commodities allocated to each commodity bucket (non-exhaustive) | Risk weight (percentage points) |
|---|---|---|---|
| 1 | Energy - Solid combustibles | coal, charcoal, wood pellets, nuclear fuel (such as uranium) | 30% |
| 2 | Energy - Liquid combustibles | crude oil (such as Light-sweet, heavy, WTI and Brent); biofuels (such as bioethanol and biodiesel); petrochemicals (such as propane, ethane, gasoline, methanol and butane); refined fuels (such as jet fuel, kerosene, gasoil, fuel oil, naptha, heating oil and diesel) | 35% |
| 3 | Energy - Electricity and carbon trading | electricity (such as spot, day-ahead, peak and off-peak); carbon emissions trading (such as certified emissions reductions, in-delivery month EUA, RGGI CO2 allowance and renewable energy certificates) | 60% |
| 4 | Freight | dry-bulk route (such as capesize, panamex, handysize and supramax); liquid-bulk/gas shipping route (such as suezmax, aframax and very large crude carriers) | 80% |
| 5 | Metals – non-precious | base metal (such as aluminium, copper, lead, nickel, tin and zinc); steel raw materials (such as steel billet, steel wire, steel coil, steel scrap and steel rebar, iron ore, tungsten, vanadium, titanium and tantalum); minor metals (such as cobalt, manganese, molybdenum) | 40% |
| 6 | Gaseous combustibles | natural gas; liquefied natural gas | 45% |
| 7 | Precious metals (including gold) | gold; silver; platinum; palladium | 20% |
| 8 | Grains & oilseed | corn; wheat; soybean (such as soybean seed, soybean oil and soybean meal); oats; palm oil; canola; barley; rapeseed (such as rapeseed seed, rapeseed oil, and rapeseed meal); red bean, sorghum; coconut oil; olive oil; peanut oil; sunflower oil; rice | 35% |
| 9 | Livestock & dairy | cattle (such as live and feeder); hog; poultry; lamb; fish; shrimp; dairy (such as milk, whey, eggs, butter and cheese) | 25% |
| 10 | Softs and other agriculturals | cocoa; coffee (such as arabica and robusta); tea; citrus and orange juice; potatoes; sugar; cotton; wool; lumber and pulp; rubber | 35% |
| 11 | Other commodity | industrial minerals (such as potash, fertilizer and phosphate rocks), rare earths; terephthalic acid; flat glass | 50% |

**What this means:** A higher capital charge under the Simplified Alternative. Note that the number of buckets and categories remain the same under both the Simplified Alternative and the Standardized Approach (11 and 11), only the risk weights changed and are less favorable under the Simplified Approach.

### e. Foreign Exchange Risk

The Simplified Alternative provides:

*Risk weights*

251. A unique relative risk weight of 45% applies to all the FX net sensitivities.

(a) For the specified currency pairs by the Basel Committee[5], banks may use a risk weight of 32% at their discretion.

While the Standardized Approach provides:

*Risk weights*

120. A unique relative risk weight equal to 30% applies to all the FX sensitivities or risk exposures.

(a) For the specified currency pairs by the Basel Committee,[31] the above risk weight may at the discretion of the bank be divided by the square root of 2.

**What this means:** A 45% risk weight under Simplified Alternative versus the 30% under Standardized Approach means a higher capital charge under Simplified Alternative.

## *CONCLUSION*

While the approach under the Simplified Alternative is a simpler approach and will require less infrastructure for compliance purposes and data collection, the risk weights appear to be by in large greater than under the Standardized Approach. This issue will be if the reduced compliance burden costs offsets the potential increase in capital based on the increased risk-weights.

For smaller institutions the majority of the risk will lie in the credit risk and may not result in significant change under the Simplified Alternative versus the Standardized Approach. However, those with a trading desk could see a significant increase. The default risk charge and the residual risk add on remain unchanged under the Simplified Alternative and thus no relief is provided for those items.