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Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel
SWITZERLAND
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Dear Sir/Madam

Revisions to the minimum capital requirements for market risk

The Australian Banking Association (**ABA**) appreciates the opportunity to provide the Basel Committee on Banking Supervision (**Committee**) with comments on the Consultative Document: *Revisions to the minimum capital requirements for market risk* (**CD**).

With the active participation of its members, the ABA provides analysis, advice and advocacy for the banking industry and contributes to the development of public policy on banking and other financial services. The ABA works with government, regulators and other stakeholders to improve public awareness and understanding of the industry's contribution to the economy and to ensure Australia's banking customers continue to benefit from a stable, competitive and accessible banking industry.

The ABA welcomes this consultation, which is a step forward in improving the risk sensitivity, consistency and operational process of some aspects of the market risk framework.

The ABA is supportive of the Committee's intent to further strengthen the market risk framework and understands the intent to finalise the framework as soon as possible. The ABA would like to reiterate that certain aspects of the framework remain excessively onerous, unduly complex and unrepresentative of the actual risk intended to be mitigated in smaller markets such as Australia. In particular, the risk factor eligibility test (**RFET**) and the operational burden of the new framework remain critical concerns. This ABA submission is to ensure the specific concerns of a smaller jurisdiction like Australia are highlighted for the Committee's consideration.

The ABA will be making a number of recommendations on aspects of the framework, we seek refinements of the framework such that it can be more appropriate and proportional for smaller markets. The ABA strongly recommends that clear discretion be made available to domestic regulators in smaller jurisdictions to allow them simplify methods within the overall structure of the framework. These domestic revisions can be designed such that the core objectives of the framework are preserved while also ensuring the framework is appropriately risk sensitive and avoids unintended consequences for those smaller, less complex markets.

Further analysis will be required to fully assess the impacts of the proposed changes on markets and the ways in which they operate. The ABA supports the Committee's intention to continue to monitor impacts before finalising certain parameters. The ABA is also broadly supportive of the proposals of the International Swaps and Derivatives Association (**ISDA**) industry working group as contained in their presentation to the BCBS Market Risk Group (**MRG**) meeting on 17 May 2018. The ABA appreciates and supports the work of ISDA and its members in analysing and responding to the Committee's consultation.

Given the complexity of the Committee's market risk framework we recommend that this monitoring and analysis be extended across all aspects of the framework to ensure that it is risk sensitive, coherent and a proportional regulatory response for the risks it is intending to mitigate.

The ABA's response to the CD is in two sections.

- Section 1: Overall framework key issues and proposals: This section discusses issues across the market risk framework that have been assessed as the most significant by the ABA.

- Section 2: Detailed responses to the CD: This section provides our response to the proposals in the CD.

Section 1: Key concerns

The five primary concerns of the ABA are:

1) The risk factor eligibility test (RFET)

2) The P&L Attribution test

3) Back-testing

4) Operational burden of the new framework

5) The standardised approach (SA)

1. The risk factor eligibility test (RFET)

Applicability of the RFET

The RFET remains the most significant issue for Australian banks due to a number of concerns which would be common to other smaller jurisdictions, these are:

- The Australian market is smaller in terms of depth and number of participants than major global markets.

- Markets may be reasonably liquid, but trading may be thinner over certain periods. For example, in Australia the combined Christmas/summer school holiday period over December and January has consistently been a period of light trading.

- Exercisable quotes may be available in the market, but they may not meet all the requirements of the 'real price' test, such as being able to be verified through a third-party vendor.

- Prices may also be available from counterparties that are reluctant or not incentivised to participate in data pooling (e.g. fund managers).

Market competitiveness and liquidity may be ultimately impacted because larger global banks may be better able to meet the RFET requirements, which may have negative impacts on both competition and liquidity. The RFET also presents significant challenges in terms of ongoing operation and costs, particularly considering the relatively small contribution of trading to Australian banks' activities, including:

- Having to build entirely new processes and IT systems for the RFET in addition to the established data validation processes currently used to support finance and risk. The operational burden of the RFET will include resources and processes to monitor eligibility on an ongoing basis, reconfigure risk factors in the risk system if their status changes and define stressed windows for each non-modellable risk factor.

- Concerns regarding the viability of data-pooling schemes in smaller jurisdictions, including concerns regarding sharing confidential data; and

- Potentially having to build interfaces with multiple third-party vendors, given that no single vendor is likely to provide coverage of the entire market.

The lack of established processes to test RFET requirements has prohibited Australian banks from being able to fully assess the modellability of risk factors or provide evidence of seasonality effects. However, available information suggests that even common risk factors such as longer-dated interest rates, corporate bonds and volatility surfaces are expected to be non-modellable per the Standard.

Having to classify these factors as non-modellable may have broader impacts on markets such as the corporate bond market, where issuance activity and liquidity may be impacted if banks are discouraged from trading these securities because of their disproportionate capital impacts.

Overall, the ABA believe that applying the RFET process to all risk factors is excessive relative to the risks involved, where most of Australian banks' market risk exposure is in vanilla products, with limited exposure to the more exotic products,

ABA RFET recommendations

The ABA would hold that the risks targeted by the RFET are largely captured by other components of the framework for the vast majority of risk factors, including:

- Established rates validation processes, which are subject to regular independent review.

- Internal governance and regulatory review of approved products, trading strategies and modelling methodologies.

- Frequent (usually daily) update of data inputs into the risk model, which limits the risk that a significant shift in rates would not be captured for a long period.

- Differing liquidity horizons by risk factor as specified for the expected shortfall calculation, which already applies higher capital to risk factors that are assessed to be less liquid.

For those risk factors that are not adequately captured by the measures noted above, we propose that the RFET should be applied through a more targeted approach, which may include:

- Amending the RFET to incorporate the impacts of seasonality (discussed below);

- Identifying a standard sub-set of illiquid risk factors deemed to be genuinely at risk of being non-modellable by each local regulator (or by industry), and a standard list of liquid factors. This will have the impact of reducing the frequency of the testing process;

- Mandating that 'non-standard' products that cannot be adequately measured using the internal model must be modelled using the standardised approach, as determined bilaterally between each bank and the local regulator; and

- Specifying that derived factors modelled using regulator approved models (e.g., long interest rate (**IR**) tenors, volatility surface wings) can also be deemed eligible

ABA recommendation on bucketing approach

The ABA proposes a modified version of the published Alternative 2 as proposed in section B.2 *Revisions to risk factor modellability* of the CD with the key features being:

- Base the maturity dimension on the bucketing structure from SBA;

- Reduce the granularity in the strike dimension to three buckets (ATM, high, low) to be in line with the fact that volatility surfaces are often modelled with 3 factors in the strike dimension (e.g. level, tilt, curvature); and

- In addition, any volatility observation could contribute to the modellability of the ATM bucket.

Seasonality impacts on the RFET

A key challenge of the 'real price' test is the requirement that the period between observations cannot exceed one month. As observed in many financial markets, trading in certain types of transactions may be reasonably frequent and regular during 'normal' periods but be sporadic during periods such as holiday seasons. As such, there may be a gap of longer than one month between these transactions that would otherwise meet the real price test.

For example, Australian domestic corporate bonds. are currently at a high risk of being classified as non-modellable due to the light trading in such securities that occur during certain periods in smaller jurisdictions such as Australia, during the Christmas/summer holiday period.

ABA recommendations

The ABA recommends that the Committee retain the requirement for 24 observations but link the maximum gap between observations to the longer of the liquidity horizon for each risk factor or one month, as a way of accommodating seasonality. As specified by the Committee, these varying liquidity horizons represent the risk of 'a sudden and severe impairment on market liquidity across asset markets' and so provide a reasonable representation of the potential gap between observations for each risk factor type. The rationale for the ABA recommendation is that that these horizons already sufficiently capture (and capitalise) the liquidity characteristics of these products, and so further classifying them as non-modellable risk factors is excessively punitive.

Under the ABA's recommended approach, Australian corporate bonds would be classified as belonging within the Credit Spread:Corporate category, attracting a maximum observation gap equal to either 40 days (i.e. 2 months, for investment grade bonds) or 60 days (i.e. 3 months, for high yield bonds), and hence would have a much higher likelihood of being classified as modellable risk factors.

The ABA believe that this modified RFET would:

- Continue to test market liquidity by requiring at least 24 observations within a 12-month period;

- Provide an operationally simple solution to the issue of seasonality that makes use of parameters already defined within the framework to capture similar risks; and

- Allow more risk factors that are typically liquid to be correctly classified as modellable and ensure that risk factors that are genuinely illiquid are captured by the non-modellable risk factor (**NMRF**) treatment.

2. The P&L attribution test

The ABA supports the proposed changes to the P&L Attribution test, where the revised metrics will make the test more stable and the introduction of the 'Amber' zone will reduce the cliff effect of failing the test.

The ABA would like to raise the following questions and issues (further details are provided in Section 2 (Annexure B.1 and Annexure B.4)):

- Analysis suggests that the Spearman Correlation statistic may result in spurious outcomes under certain conditions (see Attachment 1), highlighting the importance of continuing to monitor the performance of these tests over time to ensure that thresholds are robust.

- The ABA requests further clarity regarding the actual operation of the P&L test, including the treatment of non-modellable risk factors.

- The ABA supports the ISDA Working Group proposal to permit desks to move from the Red zone back to the Amber zone as in interim step instead of having to move directly from the Red zone to the Green zone.

3. Back-testing

The impact of non-modellable risk factors on back-test exceptions

For the firm wide back-testing, Appendix B, Section III(a): Definition of a backtesting exception / outlier contained in the final 2016 standard proves relief by disregarding exceptions if they can be proven to result from a non-modellable risk factor. But the capital requirement for that non-modellable risk factor must exceed the actual or hypothetical loss for that day.

Recommendation

The ABA believes this relief should also apply when conducting back-testing at the desk level, and secondly that the capital requirement of the non-modellable risk factor should only have to exceed the extent of the back-testing excess, rather than the entire desk's actual or hypothetical P&L on the day.

Backtest exceptions during regime shifts in volatility

With respect to back-testing exceptions in extraordinary circumstances as noted under paragraph 183 ('there may on very rare occasions…'), the ABA notes that it is a known feature of even well-performing models that they generate a higher number of back-testing exceptions during the transition to a period of higher volatility and experience more exceptions over a sustained period until the exceptions roll out of the observation window. These occurrences were observed during the Global Financial Crisis in 2008 and are demonstrated in the attached simulation analysis (see Attachment 2: Backtesting simulation analysis).

Recommendation

The ABA recommends that such occurrences should be recognised under the above sub-section of paragraph 183, permitting banks to engage with their local regulators to present the rationale for the exceptions observed and evidence of the regime shift, with the ultimate goal of permitting the continued use of the internal method with that supervisor's permission.

The ABA proposes that this analysis could include comparing P&L against stressed value at risk (**VaR**) in addition to current period VaR as a useful indicator of whether the model is providing sufficient coverage under stress.

Similarly, the ABA notes that regime shifts may be observed in particular segments of the market such as emerging markets that may not be observed across the rest of the system, which may impact particular desks while the rest of the portfolio is less impacted. As such, we recommend that such shifts for particular segments should also be recognised and treated as noted in the above recommendation.

4. Operational burden of the new framework

The P&L Attribution (PLA) test and backtesting

While the ABA supports the changes proposed to the PLA test and backtesting, there remain significant operational issues in implementing and monitoring the tests on a daily basis, operational issues with respect to the RFET are discussed in Section 1, point 1 above. Key challenges include required changes to front-office systems to generate both the hypothetical P&L and risk theoretical P&L, aligning data sets for the PLA test, and back-testing against both actual and hypothetical P&L at desk level.

Recommendation

Any measures that reduce the operational burden of the PLA test and back-testing at desk level would be welcome. The ABA would recommend reducing the frequency of testing at desk level or applying a materiality threshold to determine which desks require individual testing versus those that can be sufficiently covered by testing at the aggregate level.

Modelling and computational requirements

The ABA estimates that a significant uplift in modelling and computational capacity will be required for both the internal model approach and standardised approach by desk, as well as the requirement to develop a new internal default risk model and a new process for the residual risk add-on.

Recommendations

The ABA would support measures to address these challenges including giving banks the option of applying the standardised approach to default risk with no penalty to their overall status as internal rating based (**IRB**) banks and applying a materiality threshold to determine which desks need to apply the residual risk add-on.

5. Standardised approach

The ABA supports the proposed revisions made to the standardised approach (SA). These changes sought to address prior concerns with the framework and were primarily focused on improving the risk sensitivity of the framework and more appropriately recognising hedge relationships.

Combined, these changes represent significant progress towards ensuring the SA can act as a credible alternative to the internal model approach in the event that desks fail internal model validation tests.

Whilst the ABA strongly supports the proposed changes, it notes that additional recalibration could further enhance the risk sensitivity of the framework, particularly in regard to the curvature calculation for books with positive gamma.

Curvature Calculation: Positive Gamma

One area of concern which remains unaddressed in the CD was the disconnection between delta and gamma calculations when long options are used to hedge portfolios of related assets. The proposed calculation does not recognise the offset between long gamma positions and the delta capital calculation, results in an approach to capital that is not risk sensitive and will also have the effect of discouraging hedging.

The ABA recommends that the delta capital calculation be adjusted to deduct positive gamma from long option positions.

Section 2: ABA response to the CD (by Annexure)

Section two provides responses to the CD (points that have been raised as key issues in Section 1 are given as references and are not repeated).

Annexure A: The Standardised Approach

Annexure A.1 - Revisions to correlation scenarios

The ABA is supportive of the new formula for the low correlation scenario. The proposed changes now allow for better recognition of empirically high correlation between risk factors in the low correlation scenario when the regulatory correlation parameter is > 80% than was previously the case.

Annexure A.2 - Revisions to the curvature risk capital requirement

The approach to apply shock scenarios

The ABA supports the proposed change of applying consistent scenarios onto risk factors in the same bucket. It is also operationally simpler and less punitive than the current approach.

Regarding applying this approach to 'sectors', the ABA requests further clarity on how these sectors are to be defined, where the CD states that sectors will be 'a subset of each bucket', while the sectors given in the Standard may span multiple buckets (e.g. Standard para. 92, where 'RMBS – Prime' as a sector is covered by Bucket 1 (for Senior Investment grade) and Bucket 9 (for Non-Senior Investment Grade).

The ABA is concerned if sectors are defined as subsets of buckets, where the ABA believes this would be unnecessarily granular and depending on the definition of the sector may penalise normal hedging relationships.

Conceptually, we would support applying consistent scenarios at the highest level of grouping in order to generate the most consistent outcomes, but without further detail on exactly how the buckets and sectors are to be defined our support remains qualified.

Cliff effects caused by the approach used to calculate aggregate capital requirements

The ABA agrees with the proposed change to remove the cliff effect in the aggregation process by applying a floor to the curvature calculation. The proposed change is a better reflection of risk.

Potential double-counting of FX curvature risk (including Box 1)

The ABA is supportive of using a scalar to avoid double counting of FX curvature risk.

Annexure A.3 - Revisions to FX risk factors and curvature risk capital requirement

We appreciate the clarifications provided by these revisions – the ABA has no additional comments.

Annexure A.4 - Treatment of multi-underlying options and index instruments

The ABA welcomes the proposal to remove the requirement that all underlyings have delta of the same sign and also supports the removal of the requirement for gamma (curvature) look through approach as this could not be calculated.

Annexure A.5 - Revisions to treatment of liquid FX pairs

The ABA welcomes the revised approach of recognising triangulation in both the SA and internal model approach (**IMA**) as it is now consistent with how such currency pairs would be modelled in practice within a simulation model.

Annexure A.6 - Revisions to risk weights

The ABA supports and agrees with the proposed lower risk weights for interest rates, equity and FX risk classes.

Annexure B – Revisions to the internal models approach

Annexure B.1 and Annexure B.4 - Revisions to PLA test metric design

Description of the PLA and backtesting frameworks at the trading desk level

The ABA welcomes the clarity that has been provided on the treatment of valuation adjustments into hypothetical P&L (**HPL**), risk-theoretical P&L (**RTPL**) and actual P&L (**APL**). We request further clarification on whether combinations of modellable factors are to be considered modellable or proxies and if the latter what is the criteria for modellability. (Refer paragraph 183 (c) and Principle 7).

The ABA would welcome further clarity on the glossary definition of RTPL when compared with the description contained in 183(b) and in Appendix B of the 2016 Standard with respect to the ability and conditions around aligning the data to HPL as the current definition does not make reference to the alignment.

Para. 183(b) - revised PLA test metrics

The ABA supports the revised PLA test metrics and the changes to the observation window and calculation frequency, which had presented significant limitations in the current formulation of the Standard.

The Spearman Correlation test

The ABA has observed (see our Attachment 1: P&L Test simulation analysis) that this measure can lead to spurious results under certain conditions, where we have a fairly large proportion of the data set with values close to zero and a level of noise in the data of a similar magnitude to these values. In these cases, we see that the noise is sufficiently large to change the rank order of a large proportion of the data, leading to the test failing in cases where the P/L differences are actually small relative to the overall distribution (see Attachment 1). We recommend that consideration be given to modifying these test statistics to be robust to cases such as that illustrated in Attachment 1 of this submission.

The Chi-squared test

If adopted by the Committee into the final Standard the ABA would welcome further guidance on the application of the five bins under the Chi-squared test.

Recommendation

The ABA is supportive of extending the frequency of the test metric and the length of time series to be used. With regards to the P&L test metrics, we are supportive of the Spearman Correlation and would prefer the Kolmogorov-Smirnov (**KS**) test as:

- The KS statistic makes use of more information contained in the data.

- KS is more suited for continuous data where Chi-squared is good for discrete. We see the underlying data (P&L) as being continuous.

- The Chi-sq statistic hinges on a few key data points which define bucket boundaries, the reliance on a few key data points could cause instability of this statistic over time as data points roll on and off the VaR window.

The thresholds of both tests need further calibration against industry data as they currently generate a different probability of passing the eligibility test.

For the purpose of the PLA test the cut-off percentiles (**p-values**) seem to be very high – 35% for the amber zone and 20% for the red zone. This means that a desk with the HPL and RTPL being statistically the same will be in the red zone 20% of the time. The ABA would recommend that the Committee consider adopting more reasonable (smaller) p-values.

Paragraph 183(b) - PLA test failure consequences

The ABA supports the revised approach of introducing an amber zone as a means of smoothing the cliff effect of failing to meet the green zone criteria.

The ABA is supportive of the ISDA proposed approach that desks should be permitted to move back into the amber zone as an interim step in the cases where a desk performs better than the red zone but is not yet meeting the criteria for the green zone.

Paragraph 183(b) - Backtesting exceptions

Please see our comments in Section 1 of this submission.

Annexure B.2 - Revisions to risk factor modellability / non-modellable risk factors

Please see our key concerns and comments in Section 1 of this submission.

Paragraph 183(c) - process for satisfying modellability requirements and expectations for internal model calibration

The ABA welcomes the clarifications on the definition of 'real rates' and the risk factor eligibility test. We request further clarification regarding the intent of the statement in paragraph 183(c) that: "a "real" price is representative for a risk factor of a bank where the bank is able to extract the value of the risk factor from the value of the real price". In particular, worked examples relating to the extraction of the value of risk factors from IR swaps would be welcomed.

The bucketing of risk factors

The ABA is supportive of the bucketing approach as a necessary modification in order to make NMRF determination practical. Out of the alternatives proposed by the Committee, it appears the bucketing as per the standard method is the Committee's 'minimum accepted outcome'. As such, the ABA recommend that that banks be able to employ their own approach subject to a minimum granularity set by the standard approach method.

The ABA notes that in the proposed wording for the revised Standard (see paragraph 183(c), Alternative 1, footnote 2), that there appears to be an expectation that the buckets used for the RFET should align with what is used within both the expected shortfall (**ES**) model and for the PLA test. If this expectation is correct, it appears to be inconsistent with other areas of the document as the expectation does not appear in the text for alternative 2 contained in paragraph 183(c). In fact. 'alternative 2' explicitly states that once a risk factor has passed the test, the bank should choose the most appropriate data to calibrate its model. In addition, this treatment expectation does not appear consistent with the intention of paragraph 2.1.1 (and wording of proposed paragraph 183(b)) which allows banks to align input data in the PLA test. The ABA holds the view that such a requirement would be excessively onerous, complex and restrictive for the IMA capital calculation process.

The ABA recommends that banks be given the ability to split up buckets to get better risk outcomes if sufficient data is available, is used in measuring P&L and meets the modellability criteria e.g. introduce a 7-year point between the 5 and 10-year buckets if that part of the curve is shown to be modellable.

Section 2.2.2 Impact of the NMRF on seasonal markets

Please see our comments in Section 1 of this submission.

Section 2.2.3 Impact of the NMRF idiosyncratic equity risk

The ABA is supportive of the idea of extending the treatment of idiosyncratic credit spread risk to idiosyncratic equity risk and proposes that it should be applied in other instances as well. A good example would be an implied volatility curve. If classified as non-modellable then there will be multiple separate points that will each be capitalised individually on a worst-case basis. We believe that it would be more reasonable to compute the capital via a common stress scenario or, at worst, aggregate based on the assumption of independence between the points.

Annexure B.3 - Revisions to the IMA capital requirement and PLA test failure consequences

In the capital surcharge formula, the ABA would welcome clarification whether the term $SA_{G,A}$ refer to the sum of the standardised capital amount for all approved desks in the green or amber zone, or does it refer the standardised capital amount for all the approved green and amber desks combined into one desk for the purpose of the calculation?

The ABA would also welcome the same clarification for the term $IMA_{G,A}$.

Annexure B.4 - PLA test input data

The ABA is supportive of the change to allow input data to be aligned for the purposes of the PLA. We note that this approach may be operationally challenging to implement, such as potentially requiring a separate run of the risk model based on a separate set of rates for each impacted desk, resulting in multiple runs per day runs of the risk model. The ABA would welcome further guidance from the Committee on how data alignment would apply in the case of idiosyncratic risk, including how alignment would apply to different points and to constant maturity.

Annexure B.5 - Revisions to Appendix B and Glossary: PLA definitions

We appreciate the clarifications provided by these revisions the ABA has no additional comments.

Annexure C – Revisions to trading desk structure

The ABA is supportive of relaxing the trading desk requirements. This is a pragmatic change to the rules regarding which desk a trader can belong to, allowing in certain circumstances, assignment across two desks.

Annexure D - Guidance for evaluating the sufficiency and accuracy of risk factors for IMA trading desk models

We note that this Annexure is new to the BCBS Standard and provides a set of principles to underpin the use of risk factors in IMA. We support the spirit of the principles in Annexure D and believe that they are, for the most part, in line with current business practice. However, there is significant complexity in demonstrating adherence to the principles and we are concerned about the administrative and logistical challenges and costs involved. Therefore, the ABA makes the following recommendations/requests:

- We request further clarity regarding the apparent conflict between principle 1, which states that data may include combinations of modellable risk factors, and principle 7, which states that such combinations are to be considered proxies, the use of which must be limited. We recommend the Committee give preference and priority to the intention of principle 1 which allows the use of combinations of modellable risk factors. It is our view that the adequacy of proxies is sufficiently managed by the PLA and backtesting requirements and thus the additional restriction under principle 7 is not required.

- We recommend that further analysis is required to assess the practicality of measuring risk at an issuance level under principle 2.

- That the Committee confirm that the definition of real price observations (**RPO**) under principle 4 is consistent with the definition of real prices under paragraph 183(c).

- We request additional details on what is meant by the terms front office and back office prices.

- We request additional clarification regarding the objective and intention of the examples provided in Annexure D. Should these be interpreted as carrying an equivalent weight to the principles?

Annexure E - Revisions to the scope of market risk capital requirements

Annexure E.1 Revisions to the treatment of structural foreign exchange (**FX**) positions

The ABA is supportive of the revisions to the treatment of structural FX positions with respect to removing limitations on the amount of hedging that can be put in place. However, concerns remain around the need for on-going regulatory approval for any hedging changes. A pre-approval requirement, implemented in terms of a hedging framework, would allow banks the flexibility to hedge their on-going FX risk without the need to seek further regulatory approvals.

The ABA would like to clarify the removal of the "and/or" in paragraph 4(b). Is the intention of the Committee to restrict a bank to only take one of the two options?

Annexure E.2 Revisions to the boundary between the trading book and banking book

While the ABA welcomes the clarifications provided in the CD, we do have a number of issues and questions which we would like to highlight for the attention of the committee

Defining the trading book (paragraph 12)

The ABA appreciates that the new standard is aiming to provide more stringent and consistent definitions of the trading book and banking book.

While supporting this aim, the ABA proposes that 'trading intent' provides a clear primary definition of the trading book that can be included in paragraph 12, which would then be supplemented with the additional guidance given in paragraphs 13 and 16. The ABA believes that including trading intent in the primary definition provides a clearer and operationally simpler approach for classifying trading book instruments that will help avoid unintentional volatility in classifications that may result from the presumptive lists (e.g. as a result of pure accounting policy changes).

The ABA believes that the risk of capital arbitrage resulting from using 'trading intent' in the definition would be mitigated by:

- Internal and regulatory review of banks' trading policies[1]; and

- The new requirements regarding reassigning instruments between the trading and banking books, including disallowance of any capital benefits as a result of switching.

Net short credit and equity positions (paragraph 13)

The ABA seeks further clarity regarding the treatment of 'instruments that give rise to a net short credit or equity position in the banking book', which the standard requires must be included in the trading book. Specific questions are outlined below.

1) Does the requirement mean that the whole hedge instrument should be transferred to the trading book or only the 'over-hedge' portion?

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[1] For example, the Australian Prudential Standard APS 116 Market Risk explicitly refers to the Trading Policy Statement in its definition of the trading book: 'In allocating positions, an ADI must be guided by its trading book policy statement' (Paragraph 10).

2) If it is intended to capture just the 'over-hedged' portion, then this would require potentially complex processes to create 'dummy trades' to capture that portion of the risk and generate the required accounting measures for finance and capital calculation processes (including potentially IMA eligibility testing).

3) Alternatively, if the requirement is to move the entire hedging instrument across to the trading book, the issue of broken hedges will arise, which will create a double-count of capital (i.e. capital on the hedge and on the underlying) and discourage hedging of banking book credit and equity risks.

4) Does this transfer need to be implemented via the internal risk transfer methodology in the new Standard?

5) We note that the requirement to fully externalise the risk would not appear to be relevant if either (i) the whole instrument is transferred, in which case the banking book risk is no longer hedged, or (ii) only the 'over-hedged' portion is transferred, in which case it would no longer have any relationship to the underlying banking book risk.

6) Does the transferred exposure need to be maintained in a separate desk, as a stand-alone position or can it be transferred to an existing desk in the trading book?

7) If it requires a separate desk, then this approach introduces additional complexity in terms of meeting trading desk infrastructure and governance requirements, as well as having to meet IMA eligibility requirements if the bank wishes to apply the IMA approach.

8) In the case that it is transferred to a separate desk, can the transferred exposure be diversified with the rest of the trading book?

9) Does the reallocation of positions in these cases have to meet the governance requirements and capital restrictions given by paragraphs 27-29?

10) The ABA believes that the requirements on net short positions as currently drafted may create undue complexity and potentially discourage hedging banking book credit and equity risks, depending on the specifics of the requirement as highlighted in the questions above. Banks may be forced to unwind and reset hedges as the underlying positions change in order to avoid the complexity of the risk transfer process. These issues are in addition to the operational challenges of continuously monitoring and transferring the risks between the banking book and trading book.

Banking book instruments (paragraph 15)

The ABA seeks further clarity regarding:

- Whether the definition is meant to capture all or only some categories of credit exposure, where the current list mentions particular categories (real estate holdings, retail and SME credit) but does not refer to total loan exposure including other categories such as corporate credit;

- Whether the requirement to always assign instruments held for the purpose of hedging a particular banking book risk to the banking book includes hedging of credit, equity and interest rate risks, and if so, how the internal risk transfer methodology can be applied in combination with this requirement; and

- The treatment of proxy hedges or net short positions in the banking book, where there is a potential contradiction between paragraph 15(e), which states that derivative instruments that have banking book assets as underlyings have to be in the banking book, and paragraph 13(b), which requires that instruments that would give rise to a net short credit or equity position must be included in the trading book.

Re-designation v re-assignment (paragraphs 29 and 30)

The ABA seeks further clarity regarding the use of the verbs 're-designation' and 'reassignment' in paragraph 29 and would recommend consistency in the use of the term across paragraphs 29 and 30 (where paragraph 30 has not changed from 're-designation').

Direct hedging of banking book risks

The ABA seeks confirmation that banks will be permitted to continue the current practice of hedging certain interest rate risks direct to the market from the banking book without having to undertake the internal risk transfer process, given that:

- Interest rate risk in the banking book (IRRBB) is captured within the regulatory capital framework in Australia

- This approach allows portfolio / macro hedging to be applied

- It avoids the complexity of the revised framework's internal risk transfer process

Annexure F – Simplified alternative to the standardised approach to market risk capital requirements

Please see our comments in Section 1 of this submission.

Conclusion

The ABA appreciates the efforts of the Committee to further refine and strengthen the market risk framework and understands the intent to finalise the framework as soon as possible. The ABA urges the committee to continue to refine the framework so that it is suitable for all sized jurisdictions and proportionate to the complexity and risk being measured.

Yours faithfully

Signed by

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# Attachment 1: P&L Test simulation analysis

The Spearman correlation test

We have analysed the Spearman correlation statistic using an example of data from a real portfolio comprising AUD/USD interest rate positions, comparing the current regulatory back-test result (as a proxy for the RTPL) with front office 'clean' P&L (actual P&L adjusted for intraday and new trades as a proxy for HPL), using 1 year of data.

In this example (referring to the plots below), the alignment between RTPL and HPL is very strong (i.e. all the points lie close to the line) and the standard correlation for the portfolio is 99%, yet the portfolio reports a Spearman correlation of 71% and subsequently fails the PLA test.

Scattergraph of RTPL versus HPL. Correlation = 99% ($R2=0.97$).

$R^2 = 0.9718$
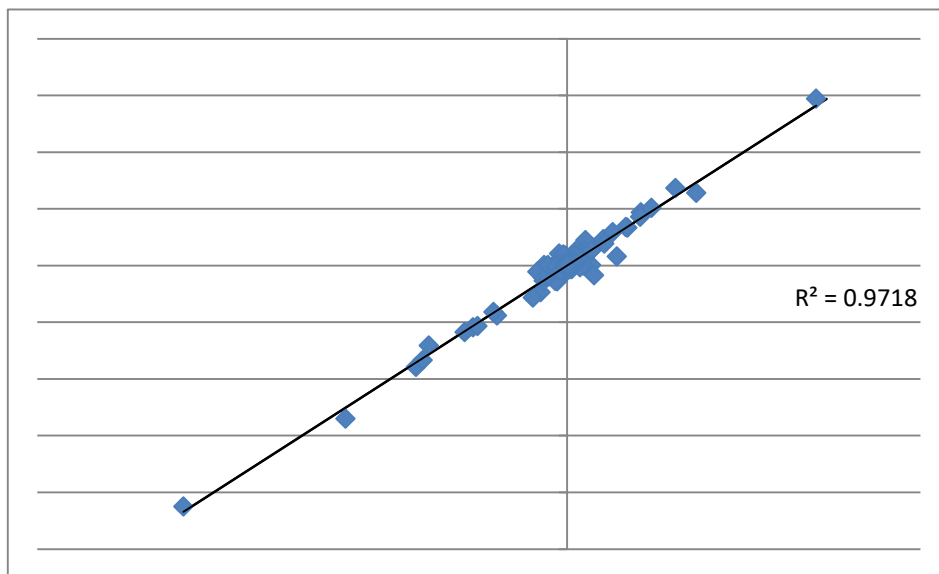
Scattergraph of rank(RTPL) versus rank(HPL). Spearman Correlation = 71% ($R2=0.51$).

$R^2 = 0.5086$
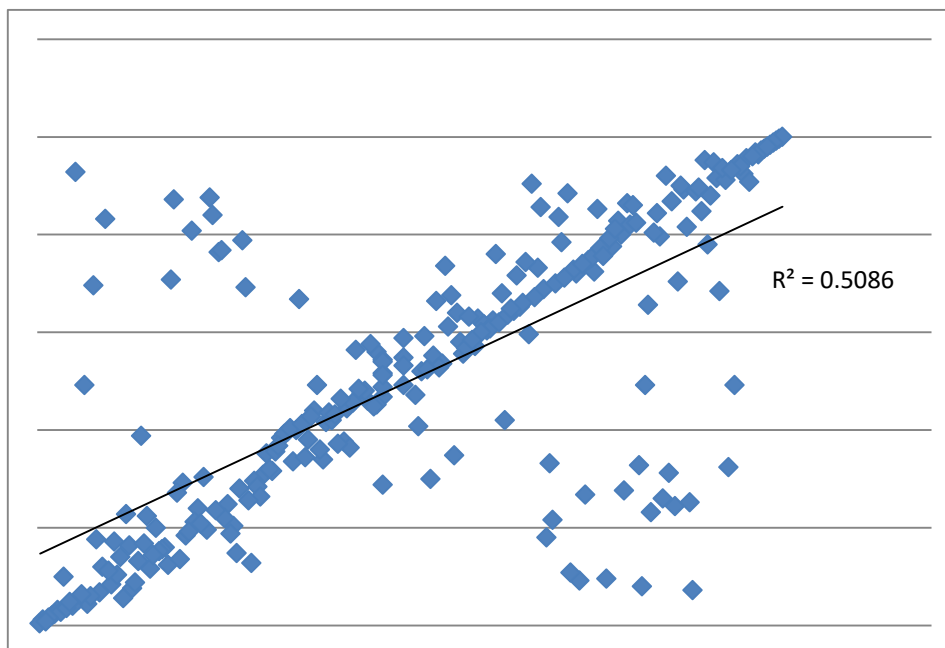
We note that these results do not change markedly even when the two points at each end of the scattergraph are removed.

The reason for this outcome is that, while the linear correlation across the distribution of points is strong, there is more noise in the body of the scattergram around zero. The Spearman correlation is based on the correlation of the ranks of the observations with equal weight assigned to each observation, with no consideration of the magnitude of the P&L points themselves. As such, this test statistic performs more poorly relative to the linear correlation because the noise is sufficiently large to change the rank order of a large proportion of the data, leading to the test failing in cases where the P/L differences are actually small relative to the overall distribution.

Attachment 2: Backtesting simulation analysis

The ABA conducted a simulation analysis to assess the performance of back-testing in response to a regime shift in volatility.

The figure below summarises the results of 10,000 hypothetical simulations with each individual simulation modelling 3 years of:

    i)   portfolio P&Ls,

    ii)   historical simulation VaR at a 99% confidence level, and

    iii)   cumulative backtest exceptions

in the presence of a 20% step increase in volatility at the t = 1-year mark.

The graph shows the number of backtest exceptions at the percentiles associated with the amber and red zones along with the average number of exceptions compared against their expected values. The analysis shows that the number of exceptions naturally increases even for an 'accurate' model as the data window incorporates the new volatility regime, and remains elevated as the data window rolls forward until (i) the new data is fully incorporated into the model and (ii) the earlier excessive backtest exceptions have rolled out of the window.
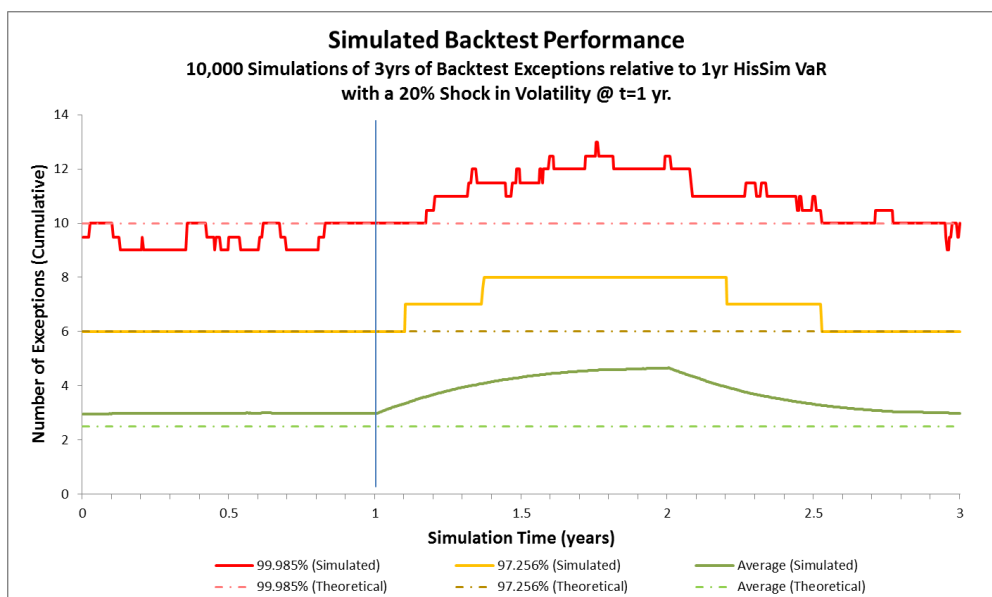
These results echo a known feature of the back-testing approach, where one can naturally expect a higher number of exceptions from well-performing models when moving from a low to a higher volatility environment. This issue will be further compounded when back-testing is performed against actual P&L that includes additional noise in addition to hypothetic P/L, per the requirements of the Standard.

As such, the ABA recommends that these known features of risk models be recognised and permitted to be addressed through a dialogue with the domestic supervisor without automatically triggering a fall-back to the standardised approach. The ABA proposes that this analysis could include comparing P&L against stressed VaR in addition to current period VaR as a useful indicator of whether the model is providing sufficient coverage under stress.