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9 March 2014

SAJEMS

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Dear Professor Buys

Thank you for the email dated 27 February 2014.

We appreciate the detailed and insightful comments provided by the reviewers. Such close reading enhances the overall paper and we are grateful for this input.

We have taken all feedback into account and our responses and associated actions are detailed below.

**REVIEWER A**

|  |  |  |
| --- | --- | --- |
| *Reviewer**comment* | *Author response* | *Action* |
| According to Author guidelines the abstract should be 200 – 400 words | We believe we have summarised the content of the paper into the requisite words | None |
| Isn’t 2007-8 more generally used? | We disagree. In many papers, the credit crisis is believed to have begun in 2008 and run until the end of 2009. See, for example [www.kaushikbasu.org/papers](http://www.kaushikbasu.org/papers)/1.%2009-11.pdf‎, [www.bankofengland.co.uk/publications/Documents/.../cr1plenderleith.pdf](http://www.bankofengland.co.uk/publications/Documents/.../cr1plenderleith.pdf), [www.lse.ac.uk/fmg/workingPapers/specialPapers/](http://www.lse.ac.uk/fmg/workingPapers/specialPapers/)PDF/SP187.pdf‎ to name but three | None |
| Why use the full reference here for a source that has 3 authors...when et al could be used...just as was done with Elliot et al at the end of this paragraph. | We agree | Corrected |
| Agree with sentence, mid page 2, but use a reference | Agreed | Source added |
| Consider source for sentence, midway down page 4 | Agreed | Source added |
| Define wrong way risk | Agreed – this need clarification  | Done |
| CDS not defined page 5 | Agreed | Done |
| Mistake in text, bottom page 5 | Agreed, did not make sense, more words added than necessary | Omitted, now makes sense |
| Add source, bottom of page 6 | Agreed | Done |
| Source for CVA in South Africa, mid p7 | Source added | Done |
| Comment that "understanding the vagaries of CVA is important to SA" is "stocky" p7 | We disagree. We feel we have established the relative importance of CVA measurement in South Africa and now move on to its probably measurement. There is little we could do to add excitement to this phrase | None |
| Add equation label for equation bottom p7 | We disagree. Since we do not refer back to this equation again, we feel that (and in keeping with international standards) this equation does not need to be numbered | None |
| Request for data source, p8/9 | We are not able to reveal the bank names  | Added a phrase declaring these sourced from SA banks |
| Confusion about sentence mid p9 | We disagree – the sentence declares that parameters were derived from SA data and we believe this is clear enough | None |
| Sources for the equations p9/10 | Agreed | Now added |
| Remove unnecessary phrase | Agreed | Removed |
| Add source p11 | Agreed | Done |
| Change *implement* to *employ* | Agreed | Done |
| P12 Wrong way risk not mentioned | Agreed  | Has now been mentioned p3 |
| Add source for Equation 7 | Agreed | Source added |
| P13, add historical technique VaR link | Agreed  | Link sentence added |
| Change Effective EPE to EEPE | We disagree, this was done in Figure 5b for clarity | None |
| Figure 3, thin the lines | We disagree, we think the lines are clear as presented | None |
| Figure 5, thin the lines | Again, we disagree and think the lines and shadings applied clarify the authors' intentions |  |
| P16 move table heading to below table | We disagree. It is our understanding that figure headings go below figures, and table headings above. We trust that SAJEMS editorial department will pick up this as an error if necessary | None |
| P17, thin the spreads line | We disagree – we believe the lines are thin enough | None |
| Source of 55% recovery rate? | BCBS applied values | Source added in bibliography and in-text |
| P20 combine two sentences  | We disagree – we think any rewording to combine these two sentences will be clumsy | None  |
| Figure 10 lines unclear | We disagree – the lines are of different thickness and dotted and dashed, so they are very different and these differences are quite clear. Changing them would be detrimental to the flow of the paper | None  |
| Source for equations p21 | Hull and White, 2012 | Now added |
| Definition of right way risk | We agree, this was an oversight on our behalf | Now added |
| P23, define b | We agree, this required a further definition | Now added |
| Define Newton Raphson | This is a standard technique, very familiar to most quantitative personnel (it is the way Solver works in Excel and Goal Seek). We do not feel this warrants a further explanation  | None  |
| P25, consider replacing "and" with "while" | Agreed  | Done |
| Several comments regarding errors and omission in the bibliography  | Agreed  | These have been corrected |

**REVIEWER B**

|  |  |  |
| --- | --- | --- |
| *Reviewer comment* | *Author response* | *Action* |
| Abstract: the first 5 lines criticise the new Basel III regulations, and regard them as being controversial and too severe. These lines have nothing in common with what the paper does |  We agree | The abstract has now been substantially altered to (a) not criticise the Basel III rules and (b) more accurately describe the content of the paper. |
| Introduction too long without clear research question | We agree | The introduction has been shortened and amended to emphasise the purpose of the article. |
| Methodology section mixed with empirical results | We disagree. The methodology section is important to establish the context of the CVA calculation and its relevance to regulatory capital issues. The *methodology* section, therefore, provides the requisite background to the ultimate CVA risk calculation by introducing a step-by-step guide to pricing an interest rate swap from first principles, then calculating the components of CVA risk, then CVA itself. Having established these building blocks, the sensitivity of CVA to market variables is launched in Section 4, the *Results* section.  | None – we feel it is necessary to distinguish between the methodology and results in this way as the *Results* section contains new information and analysis, whereas the *Methodology* section covers complex but accessible contextual information. |
| The reader has the impression that the authors propose a new method to calculate the CVA, which is not really the case | We agree. We have subsequently changed the abstract and introduction to clearly state the purpose of the article, namely to explore capital implications of the introduction of CVA in South Africa and examine the sensitivity of CVA risk components to market variables | Abstract & introduction have been changed and introduction states purpose more clearly |
| The authors make use the Hull and White (2012) to implement an adjusted CVA, this is not an innovation | We agree, this does not qualify as a contribution to existing literature. We did, however, use Hull and White's (2012) innovation to explore market variable sensitivity and we found some controversial results for high average spread levels | None (apart from other changes proposed and accepted) |
| Some literature cited in the review section is irrelevant to this paper for example McNeil & Embrechts (2005); Sundaram (2001); Jarrow et al (2006) or the story behind standard bank lending activities (see last paragraph of page 3) are just redundant and need NOT to be included here since they are common knowledge | We agree. Originally we felt this was necessary to build up the background information | This part of the literature survey has now been entirely omitted |
| The methodology section contains unexplained equations mixed with empirical applications making it difficult for the reader to understand simultaneously the complexity of the methodology and their empirical application | The structure of the paper was designed to introduce existing knowledge in the *Methodology* section (with requisite equations) and then innovations in the *Results* section, again with requisite equations and discussions about how these were examined and exploredWe have enhanced the discussion about equation relevance | This has now been amended to emphasise the purpose of the article |
| Most equations lack meanings for example Equation (2) on page 8, this equation is the same as the one in Equation (1), why do the authors repeat it in continuous form?  | We agree, this was unnecessary | Equation 2 – the continuous formula of Equation 1 – has been removed |
| Why is the volatility in this equation assumed to be constant? This model has been improved recently to account for dynamic changes in conditional variance (see for example …) | Constant volatility is a common assumption in the Vasicek short rate calculation, although we acknowledge the erroneous nature of the assumption. See for example Ahlgrim, Kevin C., Stephen P. D'Arcy and Richard W. Gorvett, 1999, Parameterizing Interest Rate Models, *Casualty Actuarial Society Forum*, Summer 1-50. There are many such sources available. In addition, whilst we acknowledge the research on jump diffusion, we feel that the inclusion of this research would detract from the article's thrust. The omission does not alter results. | We have included references provided by the referee to include these new advances, but have not amended our analysis |
| There is no section in the paper that is dedicated to the empirical applications. Results are mixed with equations in the methodology section | We disagree. The structure of the paper was designed to introduce existing knowledge in the *Methodology* section (with requisite equations) and then innovations in the *Results* section, again with requisite equations and discussions about how these were examined and explored | None  |
| Paper does not have any innovative concept however, it does have a merit of being published in an ISI indexed journal if the authors improve its presentation in terms of:1. defining clearly the research question
2. refining the literature review and
3. making sure that the methodology is well presented
 | We agree on all counts | 1. This has been done in the abstract, introduction and methodology sections
2. This has been partially amended
3. Abstract and introduction amended to clarify the purpose of the investigation
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We would like to thank you again for the opportunity to submit an article for consideration in *SAJEMS*. Please let us know any problems/omissions and we will endeavour to resolve these with a minimum delay.

Yours sincerely