APADDITIONAL NOTE ACCOMPANYING APN 107:
DIFFERENCES BETWEEN APN 107 GUIDANCE AND THE CFO FORUM'S MCEV PRINCIPLES

1. INTRODUCTION

1.1 The information contained within this document is for **informational purposes only** and does not constitute professional guidance.

1.2 This note accompanies the guidance in APN 107 (Version 8). It highlights some of the key differences between the 17 key principles set out in the *European Insurance CFO Forum Market Consistent Embedded Value Principles*[1] (*"MCEV Principles"*) and the EV reporting guidance set out in APN 107 (Version 8).

1.3 The *MCEV Principles* contains 17 key principles, together with a glossary and 145 related areas of guidance. Compliance with the 17 Principles is compulsory for CFO Forum member firms, while a "comply or explain" duty applies to the related guidance.

1.4 Outline of note:

- Section 2 provides some background around the development of the latest guidance contained in APN 107 as well as the MCEV Principles.
- Section 3 highlights some of the key differences between MCEV Principles and APN 107.
- Section 4 comments on each of the 17 key MCEV Principles in turn highlighting some key differences. Each paragraph starts with the exact wording of the particular key principle (indicated in italics) followed by specific comments.

2. BACKGROUND

2.1 The release of APN 107 (Version 4) in November 2007 represented a significant overhaul of the existing guidance at the time, which aimed to build on the strengths of previous embedded value guidance, whilst addressing the key concerns with past embedded value reporting, and in particular to allow local insurance companies to report EV results consistent with the CFO Forum's *European Embedded Value (EEV) Principles*. APN 107 (Version 5), published in July 2009 remained largely unchanged from APN 107 (Version 4) apart from additional guidance on sensitivity analysis.

2.2 The guidance provided in the Practice Note 107 (versions 6 and 5) essentially related to a real-world approach; however, it also emphasized that the guidance does not preclude the use of a market consistent approach (refer to paragraph 3.1.5 of APN 107).

2.3 Version 8 of APN107 includes a number of changes to allow for the introduction of the new Solvency Assessment and Management (SAM) solvency framework for South African insurers, in particular it allows more flexibility in terms of the liability

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The CFO Forum's *Market Consistent Embedded Value (MCEV) Principles and Guidance* and accompanying *MCEV Basis for Conclusions* was first published in June 2008. The CFO Forum published revised MCEV Principles and Guidance in March 2016 amended for the introduction of solvency II in Europe from 1 January 2017. The MCEV Principles and Guidance and related documents are copyright of the CFO Forum.

metric and related required capital metric used to set the assets allocated to the covered business.

2.4 The CFO Forum originally published MCEV Principles in June 2008 in order to "bring greater consistency and improved disclosure to the European insurance industry's Embedded Values", with mandatory compliance with the MCEV Principles for CFO Forum member firms from 31 December 2009 or onwards. The CFO Forum published revised MCEV Principles and Guidance in March 2016 amended for the introduction of solvency II in Europe from 1 January 2017.

Impact of financial crisis on roll out of MCEV Principles

2.5 December 2008: the CFO Forum announced that its member companies would be working to address the notion of market consistency within the MCEV Principles across the economic cycle and in particular its application in dislocated market conditions that was experienced at that time.

2.6 May 2009: mandatory MCEV reporting for CFO Forum member firms deferred until December 2011.

2.7 October 2009: the CFO Forum publishes an amendment to the MCEV Principles to reflect the inclusion of a liquidity premium. Also that the Forum is busy performing further work to develop more detailed application guidance, and that particular areas under review include implied volatilities, the cost of non-hedgeable risks and the use of swap rates as a proxy for risk-free rates.

2.8 April 2011: The CFO Forum withdrew the intention for the MCEV Principles to become the only recognised format of embedded value reporting from 31 December 2011. The decision reflects the ongoing development of insurance reporting under Solvency II and IFRS. The CFO Forum however remains committed to the value in supplementary information, including embedded value.

Impact of Solvency II on roll out of MCEV Principles

2.9 In September 2012, the CFO Forum released revised interim transitional guidance for embedded value reporting which is effective for all reporting dates until such time that there is full clarity on Solvency II, including the effective date and the publication of all relevant standards and guidance. Until the conditions set out above are met, there is no requirement to make allowance for the developing European regulatory regime (Solvency II) and associated consequences when complying with the European Insurance Market Consistent Embedded Value (MCEV) Principles© or the European Embedded Value Principles (EEV).

2.10 The CFO Forum published revised MCEV Principles and Guidance in March 2016 amended for the introduction of solvency II in Europe from 1 January 2017.

2.11 The Actuarial Society felt that it would be appropriate to publish this note to highlight some of the key differences between the 17 key MCEV Principles and APN 107 in a separate note, first published with APN 107 (version 6) in 2011. This is revised version of the note that accompanies APN 107(Version 8) which will be effective from 31 December 2018.

3. KEY DIFFERENCES BETWEEN MCEV PRINCIPLES AND APN 107 (VERSION 8)

3.1 The key difference between the overall approach for deriving MCEVs compared to the approach typically adopted in South Africa for EV Reporting under APN 107 is the allowance for risk.

3.2 Under MCEV a bottom-up allowance is made for financial risks (in particular, asset and liability cash flows are valued using risk discount rates consistent with those applied to similar cash flows in the capital markets and investment guarantees are valued using market consistent models calibrated to observable market prices) and an explicit allowance is made for the cost of residual non-hedgeable risks in the covered business. In contrast, under APN 107 generally a top-down allowance is made for all risks by means of the risk margin included in the single risk discount rate applicable and the value placed on investment guarantees. The MCEV methodology therefore requires a more granular allowance for the differences in the risk profile of different blocks of business than the APN 107 methodology.

4. COMMENTS ON INDIVIDUAL MCEV PRINCIPLES

4.1 MCEV Principle 1

4.1.1 *MCEV Principle 1: Market Consistent Embedded Value (MCEV) is a measure of the consolidated value of shareholders' interests in the covered business. Group Market Consistent Embedded Value (Group MCEV) is a measure of the consolidated value of shareholders' interests in covered and non-covered business.*

4.1.2 Sections 2 & 7 in APN 107 already provide guidance covering the requirements for MCEV reporting.

4.1.3 MCEV Guidance requires an external review (or disclosure of non compliance), which is not required under APN 107.

APN 107 (Version 8) guidance change: Where no external review or audit of the embedded value has been performed this should be disclosed (refer to paragraph 7.3 of APN 107).

4.2 MCEV Principle 2

4.2.1 *MCEV Principle 2: The business covered by the MCEV should be clearly identified and disclosed.*

4.2.2 This is also a requirement under APN 107.

4.3 MCEV Principle 3

4.3.1 *Principle 3: MCEV represents the present value of shareholders' interests in the earnings distributable from assets allocated to the covered business after sufficient allowance for the aggregate risks in the covered business. The allowance for risk should be calibrated to match the market price for risk where reliably observable. The MCEV consists of the following components:*

- *Free surplus allocated to the covered business;*
- *Required capital; and*
- *Value of in-force covered business (VIF).*

The value of future new business is excluded from the MCEV.

4.3.2 The main differences from APN 107 EV reporting are:

- The allowance for risk must be based on market prices where reliably observable;
- The cost of required capital is no longer a separate component in the EV. It is replaced by an explicit allowance for the cost of non-hedgeable risks and frictional cost of required capital within the VIF per MCEV Principle 6.

4.4 MCEV Principle 4

4.4.1 *MCEV Principle 4: The free surplus is the market value of any assets allocated to, but not required to support, the in-force covered business at the valuation date.*

4.4.2 APN 107 requirements (section 3.4) are similar to the MCEV Principle.

4.5 MCEV Principle 5

4.5.1 *MCEV Principle 5: Required capital is the market value of assets, attributed to the covered business over and above that required to back liabilities for covered business, whose distribution to shareholders is restricted.*

4.5.2 APN 107 requirements are similar to the MCEV Principle.

4.6 MCEV Principle 6

4.6.1 *MCEV Principle 6: The value of in-force covered business (VIF) consists of the following components:*

- *Present value of future profits (where profits are post taxation shareholder cash flows from the in-force covered business and the assets backing the associated liabilities) (PVFP);*
- *Time value of financial options and guarantees as defined in Principle 7;*
- *Frictional costs of required capital as defined in Principle 8;*
- *Cost of residual non hedgeable risks as defined in Principle 9.*

4.6.2 This Principle introduces two elements not defined in APN 107:

- Frictional costs of required capital; and
- Cost of residual non hedgeable risks.

4.6.3 APN 107 includes allowance for the 'cost of required capital' whereas MCEV explicitly allows for frictional costs, defined as the tax frictional costs and investment expenses associated with required capital.

4.6.4 Under APN 107 an implicit allowance for the cost of non hedgeable risk is made in the risk discount rate. Under MCEV explicit allowance is made for the cost of these risks.

4.7 MCEV Principle 7

4.7.1 *MCEV Principle 7: Allowance must be made in the MCEV for the potential impact on future shareholder cash flows of all financial options and guarantees within the in-force covered business. The allowance for the time value of financial options and guarantees must be based on stochastic techniques using methods and assumptions consistent with the underlying embedded value. All projected cash flows should be valued using economic assumptions such that they are valued in line with the price of similar cash flows that are traded in the capital markets.*

4.7.2 There is a requirement under APN 107 to allow for Investment Guarantee Reserves as per APN 110 with the same requirements as Principle 7.

4.8 MCEV Principle 8

4.8.1 MCEV Principle 8: An allowance should be made for the frictional costs of required capital for covered business. Where Solvency II is adopted for solvency reporting, and the Solvency II risk margin contains sufficient allowance for the frictional costs of required capital, no further allowance for frictional costs of required capital is required.

4.8.2 Refer to 4.6 above.

4.9 MCEV Principle 9

4.9.1 *MCEV Principle 9: An allowance should be made for the cost of non hedgeable risks not already allowed for in the time value of options and guarantees or the PVFP. This allowance should include the impact of non hedgeable non financial risks and non hedgeable financial risks. An appropriate method of determining the allowance for the cost of residual non hedgeable risks should be applied and sufficient disclosures provided to enable a comparison to a cost of capital methodology.*

4.9.2 Allowance for non-hedgeable risks can be taken into account when setting the risk discount rate under an APN 107 approach. Under MCEV Guidance an explicit deduction from VIF is required for the cost of these risks (refer to 4.6.2 above).

4.10 MCEV Principle 10

4.10.1 *MCEV Principle 10: New business is defined as that arising from the sale of new contracts and in some cases increases to existing contracts during the reporting period. The value of new business includes the value of expected renewals on those new contracts and expected future contractual alterations to those new contracts. The MCEV should only reflect in-force business, which excludes future new business. The value of new business should reflect the additional value to shareholders created through the activity of writing new business.*

4.10.2 The requirements under MCEV are similar to APN 107 apart from:

- The value of new business should explicitly allow for frictional costs of capital and the cost of residual non hedgeable risks;
- Underlying MCEV guidance requires PVNBP to be calculated using premiums before reinsurance, unless there are specific situations where this approach would be misleading, whereas APN 107 section 5.7.3 requires PVNBP calculated net of reinsurance.
- ***APN 107 (Version 8) guidance change:* The guidance was *aligned with the MCEV Principles in respect of allowing for reinsurance in the calculation of PVNBP (refer to paragraph 5.6.3 of APN 107)***

4.10.3 APN 107 is more prescriptive than the MCEV Principles by requiring Value of New business to be calculated on closing assumptions.

4.11 MCEV Principle 11

4.11.1 *MCEV regard to past, current and expected future experience and to any other relevant data. The assumptions should be best estimate and entity specific rather than being based on the assumptions a market participant would use. Changes in future experience should be allowed for in the VIF when sufficient evidence exists. The assumptions should be actively reviewed.*

4.11.2 Additional requirements under MCEV Guidance include the following:

- MCEV requires all the best estimate assumptions to be internally consistent (APN 107 section 4.3.4 only requires economic assumptions to be internally consistent). The underlying MCEV guidance also requires that assumptions should, where appropriate, be based on the covered business being part of a going concern. APN 107 paragraph 4.5.1 only refers to the requirement that the expense assumptions be on a going concern basis.

  APN 107 (Version 8) guidance change: All best estimate assumptions to be on going concern basis, in line with MCEV principles, (refer to paragraph 4.1.4 of APN 107)*;*
- Underlying MCEV guidance highlights that the company pension scheme deficits should be allocated to the covered business expense assumptions in an appropriate way.

  APN 107 (Version 8) guidance change:* The guidance was *aligned with the MCEV Principles (refer to paragraph 4.3.7 of APN 107).
- Underlying MCEV guidance states that dynamic policyholder behaviour should be considered in the allowance for the time value of financial options and guarantees.

4.12 MCEV Principle 12

4.12.1 *MCEV Principle 12: Economic assumptions must be internally consistent and should be determined such that projected cash flows are valued in line with the prices of similar cash flows that are traded on the capital market. No smoothing of market or account balance values or unrealised gains is permitted.*

4.12.2 Under APN 107 investment return assumptions are set with reference to real-world assumptions, which include allowance for expected risk premiums on assets such as equities, without directly adjusting for the risk inherent in these returns. A margin is added to the discount rate to reflect the risks within the business.

4.12.3 In contrast, under MCEV both investment return and discount rate assumptions are set in relation to risk free reference rates. However, the revised MCEV Principles announced in October 2009 allow the use of liquidity risk premiums under certain conditions. No up-front value is placed on any risk premiums in excess of the adjusted risk free reference rates (including any liquidity premium, where appropriate). Such risk premiums are only recognized in MCEV reporting as and when they are earned.

4.13 MCEV Principle 13

4.13.1 *MCEV Principle 13: VIF should be discounted using discount rates consistent with those that would be used to value such cash flows in the capital markets.*

4.13.2 Refer to 4.12.3 above.

4.14 MCEV Principle 14

4.14.1 MCEV Principle 14: The reference rate is a proxy for a risk free rate appropriate to the currency, term and liquidity of the liability cash flows.

- *Where the liabilities are liquid the reference rate should, wherever possible, be the swap yield curve appropriate to the currency of the cash flows.*
- *Where the liabilities are not liquid the reference rate should be the swap yield curve with the inclusion of a liquidity premium, where appropriate.*

Where Solvency II is adopted for solvency reporting, and the Solvency II risk margin contains sufficient allowance for the frictional costs of required capital, no further allowance for frictional costs of required capital is required.

4.14.2 Refer to 4.12.3 above.

4.14.3 MCEV principle 14 requires the use of swap yield curves where the swap market provides a robust basis for producing risk free reference rates. However, there is a general consensus amongst South African market experts that both the swap and government bond markets meet most of the required characteristics to be regarded as a robust basis for producing risk free reference rates. For this reason both are regarded as acceptable risk free curves for the calculation of technical provisions under new SAM regulations. The Actuarial Society supports this view.

4.15 MCEV Principle 15

4.15.1 *MCEV Principle 15: Stochastic models and the associated parameters should be appropriate for the covered business being valued, internally consistent and, where appropriate, based on the most recent market data. Volatility assumptions should, wherever possible, be based on those implied from derivative prices rather than the historical observed volatilities of the underlying instruments.*

4.15.2 Under APN 107 the PVIF should be calculated on the SVM basis (thus policy liabilities include the cost of investment guarantee reserves covered by APN 110).

4.16 MCEV Principle 16

4.16.1 *MCEV Principle 16: For participating business the method must make assumptions about future bonus rates and the determination of profit allocation between policyholders and shareholders. These assumptions should be made on a basis consistent with the projection assumptions, established company practice and local market practice.*

4.16.2 Principle similar to guidance in APN 107.

4.17 MCEV Principle 17

4.17.1 *MCEV Principle 17: MCEV results should be disclosed at consolidated group level using a business classification consistent with the primary statements, with clear description of what business is covered by MCEVM and what is not. Except where they are not considered material, compliance with the MCEV Principles is compulsory and should be explicitly disclosed.*

4.17.2 Additional requirements under MCEV Guidance include the following:

- Compliance with the MCEV Principles is compulsory and it is compulsory to publish an MCEV at least once a year. This is a stronger requirement than APN 107's advisory classification;
- The MCEV disclosure must include a statement by the directors confirming compliance with the MCEV Principles;
- The MCEV disclosure requirements require a much closer alignment with IFRS reporting than APN 107, most notably the requirement to provide segmental MCEV information in at least the IFRS segments including the movement in MCEV by segment. APN 107 suggests this as a possible approach but is not prescriptive.

Assumptions and methodology:

- The MCEV Principles introduce a number of additional disclosure requirements which are unique to the market consistent approach. These are:
    - The approach used to derive market reference rates as well as disclosure of the actual rates used (at 5 year intervals);
    - The methodology used to derive volatilities and correlations;

- The nature of and techniques used to value financial options and guarantees including details of any changes to methodology and details of any economic models used;
- Any management actions assumed in the valuation of financial options and guarantees;
- The basis used to make allowance for frictional costs;
- Detail around the treatment of non-hedgeable risks including descriptions of the risks, the method and basis used to allow for residual non-hedgeable risks, the approach used to allocate capital to residual non-hedgeable risks, any allowances for diversification and the extent to which non-hedgeable risks are included in the time value of financial options and guarantees.

New business:

- The main differences between the MCEV Guidance and APN 107 in respect of new business disclosures are as follows:
    - Since MCEV Guidance allows several options in terms of the timing (of calculation and assumption setting) of VNB calculations, the Guidance requires disclosure around the approach adopted and the impact of any changes to the timing approach;
    - The MCEV Guidance does not prescribe the publication of PVNBP, but where it is published, it needs to be analysed by showing single premiums, total annualised amount of regular premiums and the average annual premium multiplier being (PVNBP less total amount of single premiums) / total annualised amount of regular premiums;
    - The MCEV Guidance requires disclosure around any material impacts on value related to interactions between new and existing business.

Analysis of EV earnings:

- The MCEV Guidance prescribes a specific format for the MCEV earnings analysis while APN 107 provides guidelines as to the contents but leaves the precise format up to the discretion of the company. The MCEV Guidance prescribed format is generally consistent with the requirements set by APN 107 except for two additional disclosure requirements which are specific to the MCEV methodology:
    - The expected investment return from existing business should be analysed between the expected return assuming the assets earn the beginning of period reference rates and the additional earnings consistent with the best estimate real world expectations;
    - Economic experience variances and assumption changes are not required to be disclosed separately because this does not make sense in the MCEV context.

Group EV

- APN 107 is not prescriptive as to the methodology to be applied in placing a value on non-covered business. The MCEV Guidance on the other hand requires non-covered business to be valued at IFRS net asset value with only very limited adjustments permitted. The Group EV disclosure provided under MCEV Guidance may therefore differ considerably from that produced under APN 107. Once again, the MCEV Guidance provides a prescribed analysis template which is broadly consistent with the APN 107 requirements except for the alignments with IFRS. In addition, MCEV Guidance requires separate disclosure of:
  - Any earnings in respect of services provided by another part of the Group which is not included in the MCEV;
  - Sufficient information to enable an understanding of cross subsidies and look through profits counted in covered business.

Sensitivities

- The MCEV sensitivities are largely consistent with those prescribed by APN 107 except for the following:
  - The sensitivities to equity/ property and swaption implied volatilities must be disclosed;
  - The impact of setting the required capital equal to the solvency capital must be disclosed;
  - Any management action and policyholder behaviour assumed in the sensitivities must be clearly set out.

Other minor differences

- There are a number of other differences between the disclosure requirements under APN 107 and MCEV Guidance. The following is a list of such requirements explicitly set out in the MCEV Principles which are absent (or only implied) in APN 107:
  - Foreign exchange rates must be disclosed;
  - The treatment of financial reinsurance and debt financing must be explained;
  - For each significant segment, the multiple of required capital to statutory solvency capital must be disclosed;
  - Although the disclosure of Implied Discount Rates and new business Internal Rates of Return is not required, guidance is given on the approach to be applied if they are disclosed.
- There are also a number of areas where APN 107 is more explicit than the MCEV Principles but these are not set out here.