DAV

DEUTSCHE AKTUARVEREINIGUNG e.V.

Ergebnisbericht des Ausschusses Rechnungslegung und Regulierung
(Report on findings of the Accounting and Regulation Committee)

P&C KPIs und Steuerung unter IFRS 17
(P&C KPIs for and steering within IFRS 17)

Köln, 13. Mai 2022

Präambel

Die Arbeitsgruppe *IFRS* des Ausschusses Rechnungslegung und Regulierung der Deutschen Aktuarvereinigung e. V. (DAV) hat den vorliegenden Ergebnisbericht erstellt.[1]

Zusammenfassung

Der Ergebnisbericht behandelt ausgewählte Fragestellungen zu Steuerungskenngrößen (key performance indicators (KPIs)) und zur Steuerung im Rahmen des Rechnungslegungsstandards IFRS 17.

Der Anwendungsbereich umfasst die Verträge, die unter den internationalen Rechnungslegungsstandard IFRS 17 *Insurance Contracts* fallen. Die Anwendung von IFRS 17 ist für nach IFRS berichtende Konzerne verpflichtend. Da hiervon vor allem internationale kapitalmarktorientierte Unternehmen betroffen sind, wurde der vorliegende Ergebnisbericht in englischer Sprache verfasst.

Der Ergebnisbericht ist an die Mitglieder und Gremien der DAV zur Information über den Stand der Diskussion und die erzielten Erkenntnisse gerichtet und stellt keine berufsständisch legitimierte Position der DAV dar.[2]

Wir möchten darauf hinweisen, dass wir in der vorliegenden Ausarbeitung aus unserer Sicht sinnvolle Steuerungskennzahlen für IFRS 17 für ausgewählte Themenbereiche vorschlagen. Natürlich sind auch anders definierte Steuerungskennzahlen für IFRS 17 denkbar und sinnvoll. In diesem Sinne ist die vorliegende Ausarbeitung als ein Diskussionsbeitrag der DAV zu diesem wichtigen Thema zu verstehen.

Verabschiedung

Dieser Ergebnisbericht ist durch den Ausschuss Rechnungslegung und Regulierung am 13. Mai 2022 verabschiedet worden.

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[1] Der Ausschuss dankt der Unterarbeitsgruppe UAG KPI/Steuerung der Arbeitsgruppe *IFRS* ausdrücklich für die geleistete Arbeit, namentlich Thorsten Ante, Christine Bauer, Martin Brandt, Dr. Robert Bahnsen (Leitung*), Walter Classen, Christina Franz, Vjaceslavs Geveilers, Christian Knoller, Helene Lammers, Dr. Martin Linden, Dr. Claudio Schmidt-Wegenast, Dr. Thorsten Wagner. *Die Inhalte dieses Ergebnisberichts stellen dessen persönliche Meinung dar, nicht die des Arbeitgebers EY.

[2] Die sachgemäße Anwendung des Ergebnisberichts erfordert aktuarielle Fachkenntnisse. Dieser Ergebnisbericht stellt deshalb keinen Ersatz für entsprechende professionelle aktuarielle Dienstleistungen dar. Aktuarielle Entscheidungen mit Auswirkungen auf persönliche Vorsorge und Absicherung, Kapitalanlage oder geschäftliche Aktivitäten sollten ausschließlich auf Basis der Beurteilung durch eine(n) qualifizierte(n) Aktuar DAV/Aktuarin DAV getroffen werden.

Preamble

The Working Group *IFRS* of the Accounting and Regulation Committee of the German Association of Actuaries (Deutsche Aktuarvereinigung (DAV) e. V.) has issued the following report.[3]

Issue

This report deals with the topic of key performance indicators (KPIs) for and steering within IFRS 17.

This report addresses contracts that are subject to the international reporting Standard IFRS 17 *Insurance Contracts*. The application of IFRS 17 is compulsory for group reporting under IFRS. This report is written in English because it particularly addresses international and capital market-oriented companies.

The report is addressed to actuaries and is focused on providing an overview of the current state of discussions and the insights gained in the sub-working group. It is not a professional position of the DAV and is meant to support actuaries in actuarial teams.

We want to point out that in this report we suggest some key performance indicators (KPIs) for IFRS 17 for certain areas which might be useful. Obviously also differently defined KPIs are possible which might also be useful. In this sense the current report can be regarded as one point of view by DAV in an open discussion for this important topic.

Adoption

The report on findings was adopted by the DAV's Accounting and Regulation Committee on 13 May 2022.

[3] The Committee would like to explicitly thank the sub-working group KPI/Steuerung of the working group *IFRS* for their work, by name Thorsten Ante, Christine Bauer, Martin Brandt, Dr Robert Bahnsen (Lead*), Walter Classen, Christina Franz, Vjaceslavs Geveilers, Christian Knoller, Helene Lammers, Dr Martin Linden, Dr Claudio Schmidt-Wegenast, Dr Thorsten Wagner. *The content of this report represents his personal opinion, not that of his employer EY.

CONTENTS

Management Summary

In this document we present the most important highlights of IFRS 17 with respect to useful key performance indicators (KPIs) which we want to suggest for certain areas.

The new accounting standard for insurance contracts, IFRS 17 (formerly known as "IFRS 4 Phase II"), redefines the calculation of certain financial metrics and thereby establishes a new framework for corporate performance measurement. As most performance metrics, such as the Insurance Service Result and the Combined Ratio ("CoR"), may change considerably under the new standard, individual performance assessments linked to these values will have to be reevaluated as well.

Since some of the Key Performance Indicators (KPI) will be published, IFRS 17 will bring about increased transparency to analysts and shareholders, which in turn will provide better comparability across the industry.

The first chapter gives a review about the changes to the presentation of the income statement as well as the related management KPIs for P&C under IFRS 17 and IFRS 9. In section B these changes are amplified and more detailed information about the modified P&C KPIs are illuminated. Finally, part C demonstrates the changes due to volume indicators and the Return on Equity (RoE).

A. INTRODUCTION

1. SUMMARY OF CHANGES TO THE P&C STEERING FRAMEWORK

1.1 CHANGES TO THE PRESENTATION OF THE INCOME STATEMENT UNDER IFRS 17 & IFRS 9

IFRS 17 and IFRS 9 introduce a new income statement, with major changes to current presentation under IFRS 4*:*

P&L / Statement of financial performance	
Line	Note
01. Insurance Revenue	
02. Insurance service expenses	**(C)**
03. Income or expenses from reinsurance contracts held	**(B)**
Insurance Service Result (1) + (2) + (3)	**(A)**
04. Net investment income	
05. Net insurance finance expense or income	**(D)**
Net Investment Result (4) + (5)	**(E)**
06. Other Income and expenses	
Income before income taxes	
13. Taxes	
14. Net income	
15. Non-controlling interests	
16. Shareholders net income	

Key differences in presentation are:

A) **Introduction of Insurance Service Result** – A new technical underwriting result under IFRS 17 is introduced replacing the "Underwriting Result" currently used in management reporting under IFRS 4.

B) **Presentation of gross results vs net** – Insurance results are now presented gross of reinsurance held, with (ceded) reinsurance results separately presented within the Insurance Service Result.

C) **Separation of attributable and non-attributable expenses** – IFRS 17 prescribes the concept of attributable expenses, meaning that some expenses incurred by the entity will not be reflected within the technical insurance result. Non-attributable expenses are those expenses that are not directly related to the fulfillment of insurance contracts and are defined and specified by IFRS 17.B65-66.

D) **Time value of money concept** – IFRS 17 introduces the effect of the time value of money on insurance liabilities and assets (i.e. discounting).

E) **Investment result** includes the investment income measured based on IFRS 9 and compares it to the impact of the accretion of interest on the (discounted) reserves.

1.2 IFRS 17 & IFRS 9 – RELATED MANAGEMENT KPIS FOR P&C – TECHNICAL RESULT

Based on the standard income statement presentation discussed above, management KPIs for P&C Steering purposes are defined as follows:

- **Operating Insurance Service Result,** which includes non-attributable expenses that also in the past were included in the operating profit and underwriting result.
- **(Operating) Combined Ratio** based on the Operating Insurance Service Result, i.e. including attributable and non-attributable operating expenses.

In the following chapters, the definition and rationale for these KPIs will be discussed in detail.

B. (OPERATING) INSURANCE SERVICE RESULT AND COMBINED RATIO

1. OVERVIEW OF CHANGES AND RELATED DISCUSSIONS FOR STEERING PURPOSES

As discussed above, IFRS 17 introduces several changes for the measurement and presentation of the technical result for insurance business. In particular the new standard introduces the presentation of the "Insurance Service Result" as a core IFRS KPI. This sub-result of the income statement is conceptually similar to the "Underwriting Result" which currently under IFRS 4 forms the basis for monitoring the P&C business, together with the combined ratio that is defined based on the Underwriting Result.

Related to the differences between the Insurance Service Result defined by IFRS 17 and the Underwriting Result defined in the current management framework for P&C under IFRS 4, the following points have been discussed (please also refer to the examples and illustrations at the end of this section):

1.1 PRESENTATION OF (CEDED) REINSURANCE AS SEPARATE ITEM

While in the current Underwriting Result and the related combined ratio, ceded reinsurance is netted off in the positions net earned premium, net claims and net expenses, the Insurance Service Result is presented as:

- Insurance Revenue (gross of reinsurance):
- Insurance Service Expenses (claims and expenses gross of reinsurance); and
- Income and expenses from reinsurance contracts held (containing the reinsurance result)

While, this change in presentation in the core financial statements does not alter the total amount of the underwriting result, it triggers discussion on how to define and present the combined ratio as a key performance indicator for steering P&C business.

Following the main line items of the new presentation, the natural definition for the combined ratio is 1- (Insurance Service Result divided by Insurance Revenue), i.e. the reference (denominator) would be the gross revenues, while currently under IFRS 4 the reference for the combined ratio is the net earned premium.

This typically will lead to a higher combined ratio. Apart from the level of the number the following points have been raised in the discussion:

- Particularly in the case of "fronting" the combined ratio increases and it has been raised that there is a potential for overestimation and double counting of revenues.
- A "group combined ratio" is not "additive"; in fact the consolidated combined ratio may be lower than the weighted average stand-alone ratios.
- Target ratios need to be re-calibrated in particular for complex business and reinsurance structures.

- Loss ratio and reinsurance ratio seen on a standalone basis may be volatile due to large claims and natural catastrophe events that are covered by reinsurance.

On the other hand the advantage of the new presentations are:

- The definition provides more consistency with gross revenues as a growth measure and better reflects bottom line effects.
- Economic effects from reinsurance are more transparent and better reflected in the main value and its break-down. There is less "noise" and distortions in the ratio from reinsurance structures that contain for example provisions for reinstatement premiums, high ceding commissions or performance based commissions. (see example 2 at the end of this chapter)
- For individual portfolio steering and analysis of effects the ratio can easily be decomposed into the main elements creating full transparency on the individual result drivers.

1.2 DISTINCTION BETWEEN ATTRIBUTABLE AND NON-ATTRIBUTABLE EXPENSES

The IFRS 17 standard requires only those expenses considered as "directly attributable to fulfilling the insurance contracts" to be captured in the insurance service result under IFRS 17. Non-attributable expenses are part of the "Other Result" within the income statement.

It is already current practice in the insurance industry to distinguish between expenses to be considered in the underwriting result and those that are not to be considered in the underwriting result as well as more generally expenses that are to be considered in the operating profit and those that may be excluded, for example certain restructuring expenses and expenses for business transactions.

Due to the fact that the current definition in the standard is rather vague and leaves room for different interpretations, it remains to be seen whether the distinction between attributable expenses and non-attributable expenses required by IFRS 17 can be aligned with current practice, as local accounting and audit practices are still evolving.

The advantage of an alignment with current practice is also an alignment with current external reporting and the management view on steering and pricing, which may be distorted by a narrow interpretation of attributable cost from the auditors.

Therefore, it is being discussed that all non-attributable expenses which meet the current criteria for the underwriting result / Combined Ratio under current IFRS 4 reporting (if any) may be included in an "Operating Insurance Service Result" and the related "(operating) combined ratio".

1.3 INVESTMENT COMPONENT

The IFRS 17 standard requires the exclusion of so-called "investment components", i.e. payments made even if an insured event does not occur, from revenues and expenses/claims. Examples for investment components in P&C are no-claims bonuses, premium re-imbursement and in the case of assumed reinsurance, the commission paid to the ceding company to contribute to cost or as profit commission. So far, the effects have not been studied in detail by the companies, however it is expected that after transition and re-calibration of targets and results, the new definition will adequately reflect the economics of the business. With this approach, the combined ratio will also be reasonable for use for long term business, such as long term health or accident with savings components.

1.4 DISCOUNTING AND RISK ADJUSTMENT

The IFRS 17 standard introduces the concept of the time value of money for the valuation of insurance liabilities, i.e. liabilities for incurred claims are discounted and in case of longer timing gaps between premium and expected related claims incurred, interest accretion is recognized in revenues. At the same time, an explicit risk adjustment needs to be calculated and included in the insurance liabilities.

The discounting of incurred claims reserves and interest accretion on revenues leads to an improvement of the (accident/current year) underwriting result, as the reserves to be set up for future payments are typically lower (assuming positive interest rates!). The corresponding interest accretion over the run-off of the reserves is charged to the investment result as "funding charge". Therefore the run-off results are not systematically affected, unless reserve corrections need to be performed. From an economic point of view, this is considered reasonable and is also an extension of treatment for long term business in the current framework.

The risk adjustment on the other hand leads to an increase of reserves for incurred claims to adjust for the risk of negative deviations from the estimates. Therefore, the risk adjustment leads to slightly lower accident/current year result and a positive bias for the prior year results, i.e. the run-off. A drill-down of the results and the combined ratio elements is available if more detailed analysis is necessary to separate the effects of the risk adjustment. Generally, however the treatment appears valid also for combined ratio target setting and target achievement.

1.5 AMORTIZATION OF ACQUISITION COSTS AND LOSS COMPONENT

The treatment of acquisition costs in IFRS 17 has been one of the main discussion points since the standard was issued in 2017. While it is current practice under IFRS 4 / US-GAAP to activate acquisition costs and amortize them over the "economic" duration of the contract including estimated renewals, IFRS 17 only allows to recognize the premium expected within the contract boundaries of a contract for amortization of related acquisition cost. This would have led to a high burden for newly issued contracts, where commissions and acquisition costs in pricing allow for a certain probability of renewals. This is one of the areas where the IASB has made a late amendment in the IFRS 17 standard, such that acquisition expenses may be activated and attributed to renewal periods.

In addition, the standard introduces more restrictive evaluation of loss making contracts. As a consequence loss components normally have to be recognized on a higher granularity than the current practice to recognize deficiency reserves.

Both topics may lead to different timing of result development compared to those under current practice. However, overall the effects are not expected to create large distortions in the steering process.

1.6 EXAMPLES AND ILLUSTRATIONS

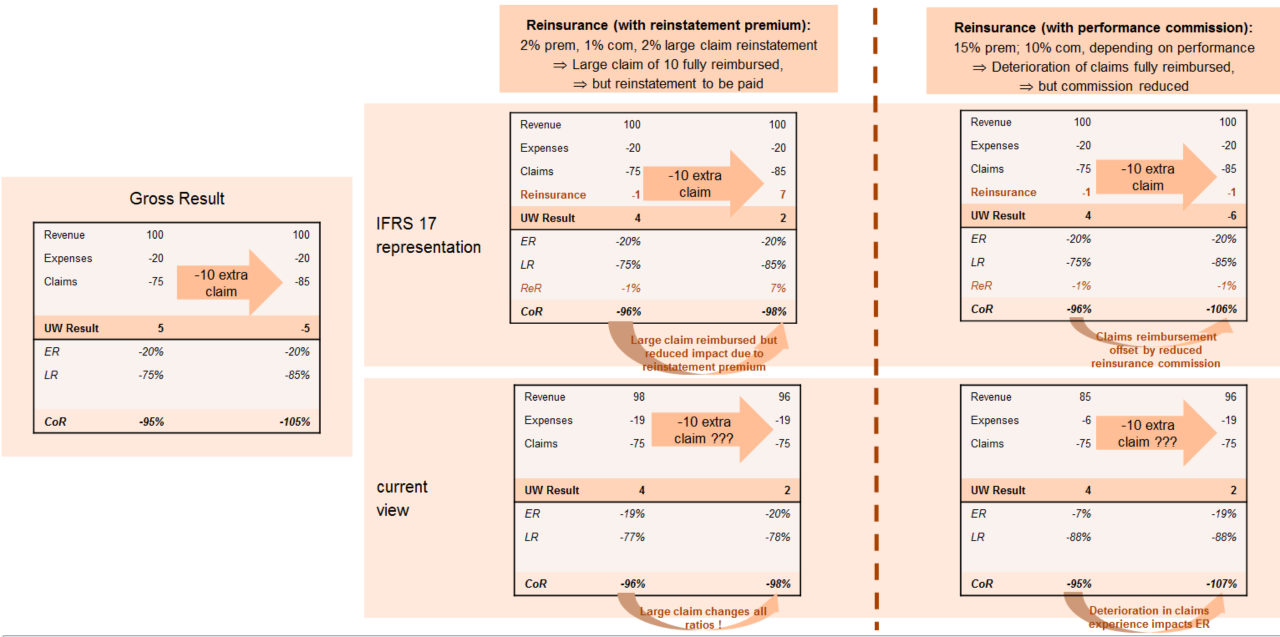
Example 1: Illustration of Insurance Service Result and Combined Ratio

This table shows the changes of the Combined Ratio ("CoR") and underwriting results between IFRS 4 and IFRS 17 and the impacts of the inclusions of different aspects of the insurance service result within the ratio. The table has the same structure as the description of the differences to the new regime in this chapter before

IFRS 4		IFRS 17 Reinsurance Representation		IFRS 17 Investment Component		IFRS 17 Discount & Riskmargin		IFRS 17 Loss Component & Amort Acq		IFRS 17 Attributable Cost	
Earned Premium	**320,0**	**Revenues**	**400,0**	**Revenues**	**374,0**	**Revenues**	**374,0**	**Revenues**	**374,0**	**Revenues**	**374,0**
gross	400,0	gross	400,0	gross	400,0	gross	400,0	gross	400,0	gross	400,0
ceded	-80,0			investment component	-26,0	investment component	-26,0	investment component	-26,0	investment component	-26,0
Expenses	**-56,0**	**Expenses**	**-70,0**	**Expenses**	**-48,0**	**Expenses**	**-48,0**	**Expenses**	**-48,3**	**Expenses**	**-47,3**
gross	-70,0	gross	-70,0	gross	-70,0	gross	-70,0	gross (IFRS 17 amort)	-70,3	gross - attributable	-69,3
ceded	14,0			investment component	22,0	investment component	22,0	investment component	22,0	investment component	22,0
Claims	**-184,0**	**Claims**	**-230,0**	**Claims**	**-226,0**	**Claims**	**-225,0**	**Claims**	**-225,5**	**Claims**	**-225,5**
gross	-230,0	gross	-230,0	gross	-230,0	gross	-229,0	gross	-229,0	gross	-229,0
ceded	46,0			investment component	4,0	investment component	4,0	investment component	4,0	investment component	4,0
								delta loss component	-0,5	delta loss component	-0,5
		Reinsurance	**-20,0**	**Reinsurance**	**-20,0**	**Reinsurance**	**-20,0**	**Reinsurance**	**-20,0**	**Reinsurance**	**-20,0**
		premium	-80,0	ceded revenues	-66,0	ceded revenues	-66,0	ceded revenues	-66,0	ceded revenues	-66,0
		expenses	14,0	ceded service expenses	46,0	ceded service expenses	46,0	ceded service expenses	46,0	ceded service expenses	46,0
		claims	46,0								
UW Result	**80,0**	**Insurance Service Res**	**80,0**	**Insurance Service Res**	**80,0**	**Insurance Service Res**	**81,0**	**Insurance Service Res**	**80,2**	**Insurance Service Res**	**81,2**
										Non-attributable expenses	-1,0
										OP Ins Service Result	**80,2**
Claims (gross)	**-230**	**Claims (gross)**	**-230**	**Claims (gross)**	**-230**	**Claims (gross)**	**-229**	**Claims (gross)**	**-229**	**Claims (gross)**	**-229**
AY	-250	**AY**	-250	**AY**	-250	**AY**	-250,5	**AY**	-250,5	**AY**	-250,5
paid a.y	-50	paid a.y	-50	paid a.y	-50	paid a.y	-50,0	paid a.y	-50,0	paid a.y	-50,0
reserve a.y.	-200	reserve a.y.	-200	reserve a.y.	-200	disc. reserve a.y.	-198,5	disc. reserve a.y.	-198,5	disc. reserve a.y.	-198,5
						RA incurred	-2,0	RA incurred	-2,0	RA incurred	-2,0
PY	20	**PY**	20	**PY**	20	**PY**	21,5	**PY**	21,5	**PY**	21,5
run off	20	run off	20	run off	20	run off	20,0	run off	20,0	run off	20,0
						run off RA	1,5	run off RA	1,5	run off RA	1,5
CoR	-75,0%	**CoR**	-80,0%	**CoR**	-78,6%	**CoR**	-78,3%	**CoR**	-78,6%	**OP CoR**	-78,6%
LR	-57,5%	LR	-57,5%	LR	-60,4%	LR	-60,2%	LR	-60,3%	LR	-60,3%
ER	-17,5%	ER	-17,5%	ER	-12,8%	ER	-12,8%	ER	-12,9%	ER (incl. non-attrib)	-12,9%
		ReR	-5,0%	ReR	-5,3%	ReR	-5,3%	ReR	-5,3%	ReR	-5,3%
LR ay	*-78,1%*	*LR ay*	*-62,5%*	*LR ay*	*-66,8%*	*LR ay*	*-67,0%*	*LR ay*	*-67,0%*	*LR ay*	*-67,0%*
run-off ratio	*6,3%*	*run-off ratio*	*5,0%*	*run-off ratio*	*5,3%*	*run-off ratio*	*5,7%*	*run-off ratio*	*5,7%*	*run-off ratio*	*5,7%*

Example 2: non-proportional reinsurance and COR

The following tables illustrate how non-proportional reinsurance structures with reinstatement premium and performance based commissions are reflected in the CoR, when reinsurance is shown as a separate component. This illustrates that the "netted" view in the current representation may lead to misleading results, while the new view creates greater transparency on the economic impact of reinsurance.



2. OPERATING OR EXTENDED INSURANCE SERVICE RESULT

As discussed above, the Operating Insurance Service Result is based on the IFRS 17 Insurance service Result, but includes non-attributable operating expenses.

It can be broken down in the following main line items[4]:

01 Insurance Revenue

a) Release expected cash flows (for BBA only)
b) Release contractual service margin (for BBA only)
c) Change risk adjustment (for BBA only)
d) Premium release PAA
e) Adjustments insurance revenue
- Investment component

f) Other

02 Insurance service expenses

a) Incurred Claims
b) Changes that relate to past services
c) Adjustments insurance service expenses
- (expected & unexpected) Investment component claims
- (expected & unexpected) Investment component expenses

d) Acquisition expenses
e) Administrative expenses
f) Losses on onerous contracts
g) Other

03 Income or expenses from reinsurance contracts held

a) Reinsurance reduction in expenses
b) Reinsurance generation of expenses

INSURANCE SERVICE RESULT (1) + (2) + (3)

04 Non-attributable operating expenses

a) Non-attributable operating acquisition costs
b) Non-attributable operating administrative expenses

OPERATING INSURANCE SERVICE RESULT (1) + (2) + (3) + (4)

<u>Comments:</u>

1) Insurance Revenue:

[4] Please note: the representation below serves just to illustrate some of the main new aspects and contents of the Insurance Service Result, the presented detailed line items may presented differently in actual disclosure.

- Insurance revenue depicts "the provision of coverage and other services arising from the group of insurance contracts at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those services" (IFRS 17.83).
- Insurance revenue effectively follows a gross earned premium concept, which is different to IFRS 4, where the income statement showed revenue as net earned premium. Currently, gross written premium is a non-GAAP measure used to measure revenues as a growth figure. The decision on future growth measurements is discussed in a separate chapter, but it is to be noted at this stage that the IFRS 17 standard introduces a GAAP measure for Insurance Revenues.
- Given the working assumption that most P&C business will be measured under the PAA measurement model, it is expected that a majority of P&C insurance revenue will be from sub item 01.d Premium release PAA.
- For BBA business, insurance revenue will be split between lines 01.a Release expected cash flows, 01.b Release contractual service margin and 01.c Change risk adjustment.
- As insurance revenue and insurance service expenses exclude any non-distinct investment components (IFRS17.85), it is important that insurance revenue excludes any adjustments for non-distinct investments components captured in line 1.e Adjustments insurance revenue.

2) Insurance Service Expenses:

- Incurred claims are net of discounting effects and include a risk adjustment.
- Claims costs relating to past services are similar to claims "run-off" under IFRS 4, however includes a release of the risk adjustment on run-off. This risk adjustment release on the run-off should lead to a positive bias for the run-off.
- Losses on onerous contracts need to be evaluated potentially on a more granular level, as introduced by IFRS 17 in accordance with IFRS 17.47-52.
- Only those expenses considered as "directly attributable to fulfilling the insurance contracts" are captured in the technical result under IFRS 17. Non-attributable expenses are part of the "Other Result" within the income statement.
- As for insurance revenue, insurance service expenses need to exclude any adjustments for non-distinct investment components captured in line 02.c Adjustments to insurance service expenses.

3) Income or expenses of reinsurance contracts held:

- The presentation of "gross results" and the separate presentation of (ceded) reinsurance results is a key change. This gross presentation provides a clear view of the impact of reinsurance. This is shown in the illustrative example 2 – Reinsurance Examples under IFRS 17.

- The reinsurance result can be further broken down in (a) Reinsurance reduction in expenses (i.e. benefits received from the reinsurer) and (b) Reinsurance generation of expenses (i.e. ceded premium). Similar to the concept of investment component cash flows that do not depend on reinsured events are netted (e.g. reinsurance commissions between cedent and reinsurer are netted against ceded premium and ceded expenses, no claims bonuses are netted in premium and claims).

4) Non-attributable operating expenses:

- As described in B.1.2., any operating (claims, acquisition or admin) expenses for contracts measured under IFRS 17 that don’t fall into the attributable expenses definition under IFRS 17 will be included within the Operating Insurance Service Result. Any non-attributable expenses included from here on refer to this definition.
- Other non-attributable costs to be included are shown in the line item 'Other expenses’ in the standard IFRS 17 income statement.

3. OPERATING COMBINED RATIO

The combined ratio ("CoR") is a key metric used to measure the underwriting profitability of the P&C business. The CoR is defined and calculated based on the Operating Insurance Service Result as follows:

Operating CoR P&C Segment equals:

- The sum of:
  - 02.Insurance Service Expenses
  - 03 Income or expenses of reinsurance contracts held,
  - 04.Non-Attributable operating expenses
- Divided by: 01 Insurance Revenue

Therefore = ((2) + (3) + (04)) / (1)

<u>Comments:</u>

General:

- Similar to today, the ratio specified above can be calculated directly from the presentation income statement.
- However, as a major difference to today, the reinsurance result is shown as a separate component within the combined ratio and the denominator is based on gross revenues. This leads to different results, in particular when the ceded premium is a substantial amount of the gross revenues (see related section).
- In addition other changes, as described for the operating Insurance Service Result (e.g. elimination of investment components, discounting, risk adjustment, loss component, etc.) will also have smaller effects on the combined ratio and may lead to different target values. However in general these changes do not distort the view on the combined ratio, in particular when comparing actual to target!
- Example 1 in section B.1.6 provides illustrative examples on the main changes.

Drill downs:

Similar to today, the CoR will be further broken down into the loss ratio and the expense ratio, and in addition the reinsurance ratio (see below):

A. Loss Ratio P&C Segment

Loss Ratio P&C Segment equals:

- The sum of:
  - 02.a Incurred Claims
  - 02.b. Changes that relate to past services
  - 02.c Adjustments to insurance service expenses-claim related
  - 02.h Losses on onerous contracts
- Divided by: 01 Insurance Revenue

Therefore = ((2a) + (2b) + (2c) + (2h)) / (1)

- The loss ratio consists of claims and insurance benefits incurred divided by insurance revenue and thus expresses the percentage of insurance revenue used to settle claims.
- Additional break-down may be provided as currently for internal analysis and explanations so that full monitoring is assured, e.g. run-off ratio, Nat Cat Attribution, Large Loss Attribution etc.

B. Expense Ratio P&C Segment

Expense Ratio P&C Segment equals:

- The sum of:
  - 02.e Acquisition costs
  - 02.f Administrative expenses
  - 02.c Adjustments to insurance service expenses-expense related
  - 04. Non-attributable operating expenses
- Divided by: 01 Insurance Revenue

Therefore= ((2e) + (2f) + (2c) + (04)) / (1)

- The expense ratio reflects attributable expenses, such as acquisition and administrative expenses, as well as non-attributable expenses, divided by insurance service revenue. It reflects the percentage of insurance revenue used to cover underwriting expenses for the acquisition of new or renewal business and for administrative expense.
- As described above, non-attributable expenses have been included within the expense and combined ratios.

C. Reinsurance Result Ratio

Reinsurance Result Ratio (ReR) P&C Segment equals:

- 03 Income or expenses from reinsurance contracts held
- Divided by: 01 Insurance Revenue

Therefore= (03) / (1)

- In line with the revised income statement presentation, reinsurance is now treated as a separate component within the CoR which differs from the current CoR, which is calculated, based on net positions.
- The new CoR reinsurance component ratio is defined as the Reinsurance Result Ratio ("ReR")
- Including this item as a separate component in the ratio results typically in an overall higher CoR, as normally Reinsurance is an expense. This can be evidenced in Column A of the example 1 of section B.1.6. Though, in scenarios where we have large losses and reinsurance contribution, this amount can be negative and thus reduce the CoR.
- Additional break-down will be available for internal analysis and explanations so that full monitoring is assured.

C. VOLUME INDICATORS AND RETURN ON EQUITY

1. VOLUME INDICATOR

Current Definitions

Current typical definition for the "Revenues" used as growth indicators for Financial Service Groups includes Gross Written Premium (GWP) or local statutory premiums for the P&C and L&H insurance segments along with fee and commission income for service contracts and fee and commission income and net financial income for the asset management segment.

Further some segment specific Volume Indicators are being used, e.g. the Present Value of New Business Premiums (PVNBP) for life business and Net Inflows for asset management.

Volume Indicators under IFRS 9/17

Under IFRS 9/17 a new GAAP measure "Insurance Revenue" is introduced for insurance business. The Insurance Revenue is defined by the gross premiums net of investment component (i.e. guaranteed pay-back values such as "savings" component paid back also in case of surrender for Life, no claims bonus, etc). In the case of the variable fee approach (VFA) application (for insurance contracts with direct profit participation) revenues indirectly also include variable fees like shareholder margins on asset performance.

Comparison of the GWP in IFRS 4 and IFRS 17 Insurance Revenues for P/C

The difference is mostly driven by "earned premium" vs. "written premium" view, i.e. timing.

While the Insurance Revenues are defined by the IFRS 17 Standard, we notice a partially diverging definition of GWP within the international industry (e.g. ultimate view may be applied, differences in netting reinsurance commissions or no claim bonuses, etc.).

When comparing IFRS 4 gross earned premiums with IFRS17 Insurance Revenue the difference is mostly driven by P/C products with "saving" elements. Yet overall in contrast to L/H the investment component is not particularly significant.

Comparison of the GWP/local statutory in IFRS 4 and IFRS 17 Insurance Revenues for L/H

For L/H insurances the difference is mostly driven by taking the investment component out of the Insurance Revenue. In addition there is a significant difference in the timing of the recognition of revenues in particular for single premium business but also for regular premium business where the "insurance- and risk component" is growing over time. In both cases IFRS 17 insurance revenues would emerge later than GWP.

<u>Insurance Revenue as Growth Measure</u>

The inclusion of the Insurance Revenue in the Growth Measure implicates several advantages and disadvantages.

Pro	Contra
• In line with standard definition, reduces non GAAP Measures in principle KPIs • More standardization, as currently different interpretation (e.g. ultimate view, netting of economic effects) • In line with performance KPIs (e.g. CoR is measured relative to Insurance Revenue in P/C) • Difference largest for Life, yet new Insurance revenue as defined fits better to P&C revenue / AM revenue definition • For Life increased focus on "risk" business rather than savings business and less focus on single premium	• Major change in KPI that needs to be explained well as numbers look significantly different particularly for Life business • Delay of recognition of new production ("written vs earned") • To be further analyzed: potential distortions connected to volatility in CSM release, dependency of CSM release on investment result for Par business (mixture of result and revenue due to "performance based fee" concept!) (materiality in terms of revenue?)

It appears likely that along with the GAAP Measure "Insurance Revenues" the industry will continue to also reflect the Non-GAAP measure "GWP" as a volume indicator for the Insurance Segment together with other segment specific indicators such as PVNBP for Life insurances as well as net inflows for the Asset Management.

2. RETURN ON EQUITY

Current Definition

The Return on equity (RoE) is a measure of a company's profitability by establishing the ratio between the companies net earnings to its shareholder equity.

According to this the RoE basically measures the rate of return received by the shareholders on their equity. In this way the RoE is considered as the return on net assets. Generally it signifies how efficient the company is in generating returns on the investment it received from its shareholders.
The "return" may be derived directly from the IFRS net shareholder income or a normalized net earnings expectation as for example a net operating profit. The value of the net assets can be derived from the average of IFRS shareholders' equity at the beginning and the end of the period. Adjustments may be necessary for correcting any accounting mismatch, such as for example in the current IFRS framework an adjustment for unrealized gains and losses on bonds net of shadow accounting, as reserves under IFRS 4 may not reflect market value reserves creating an accounting mismatch between assets and liabilities and a distortion in the results for example when market interest rates are changing.

$$RoE = \frac{Net\ income\ attributable\ to\ shareholders}{(Shareholders'\ equity\ begin\ of\ period + shareholders'\ equity\quad end\ of\ period)/2}$$

Return on Equity under IFRS 9/17

- For calculating the RoE the net income attributable to shareholders or some "adjusted net income" measure might be used. Candidates for such an "adjusted net income" could be for example:
  - operating profit after tax
  - IFRS net income including realized gains/losses from direct equity investments valued at FV-OCI without recycling. This adjustment is justified by the fact, that gain and loss realizations on equity flow into revenue reserves, which represent dividend paying capacity.

  The shareholder equity may be derived directly from the IFRS shareholder equity for IFRS 9/17 as conceptionally accounting mismatches are reduced by valuing assets and liabilities at their market value. In the case where asset and liability OCI are still perceived to create too much accounting volatility an elimination of the net OCI may still be recommendable for a better reflection of an undistorted ROE. However due to the VFA application in the German Life insurance market the usage of Mod BBA is very limited.

Please note: from analysts and some international peers other definitions of RoE for IFRS9/17 have been proposed that would include the change in CSM or the CSM from New business in the enumerator and the CSM after tax as an equity like position in the denominator. However it appears that this definition is in contradiction with the view from the insurance industry and the standard setter that profit should not be recognized and earned at inception of a contract but should emerge over the time insurance services have to be provided to the customers, which has led to the introduction of the CSM as part of the liability for remaining coverage.