Ergebnisbericht des Ausschusses Rechnungslegung und Regulierung

Planung und Forecast IFRS17

Köln, 27. September 2024

Präambel

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

Anwendungsbereich

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

Verabschiedung

Dieser Ergebnisbericht ist durch den Ausschuss Rechnungslegung und Regulierung am 27. September 2024 verabschiedet worden.

¹ Der Ausschuss dankt der Arbeitsgruppe *IFRS* ausdrücklich für die geleistete Arbeit, namentlich Kerstin Block, Giuseppe Maria Capriani, Anja Eickhoff, Vjaceslavs Geveilers, Sören Hagedorn, Carsten Horst, Sebastian Kories, Nina Paulus, Marc Schmitz, Ulrike Schwarz, Shaohui Wang

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.

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1. Preliminary remark

This paper describes aspects for planning and forecast for insurance business classified as IFRS 17 Insurance Contracts. Insurance-related financial instruments that are classified as IFRS 9 Financial Instruments or other contracts not in scope of IFRS 17 are not considered.

The content of this paper focuses on the forecast of the insurance service result. However, the projection of insurance finance income and expenses may additionally be taken into account as part of a company's forecast. In particular, assets valued under IFRS 9 may impact the insurance service results depending on the IFRS 17 measurement model for the insurance portfolio. However, this aspect is explicitly excluded from the scope of the paper.

2. Introduction and motivation

Forecast and planning are key tasks for all insurance companies. It reveals important information about the future development of a company. The content of forecast and planning is manifold, e.g. it can cover the projection of key performance indicators (such as new business volumes, asset performance,...), or specifically refer to common financial reporting measures applicable and relevant for the insurance companies such as local GAAP, Solvency II or IFRS. As such, the forecast or planning provide useful insights about the financial situation of the company, the likelihood to achieve communicated targets and may trigger management actions to steer the business.

In this paper we focus on forecast and planning under the recently introduced reporting standard IFRS 17. Under "forecast" we understand the projection of financials until the end of the current (reporting) year of a company. The forecast is usually carried out during the reporting year and serves as an estimate for the full financial year. As "planning" we define a projection of financials over multiple years, typically 3 to 5 years. It may include the forecast. Often, we will use the terms "forecast" and "planning" as synonyms in this paper.

Insurance companies which have been reporting under the previous IFRS 4 are familiar with the forecast/planning exercise. As there is no pre-defined approach to prepare the forecast, the methodology varies across the companies. For example, under IFRS 4 companies have used figures from local GAAP planning and adjusted specific line items to reflect IFRS methodology. With the introduction of the new standard IFRS 17 we expect the forecast / planning exercise to gain more complexity, e.g. due to:

- Use of advanced cashflow models
- New key performance indicators (KPI)
- Higher granularity of results possible
- Direct interaction between assets and liabilities for with-profit business

Key areas of interest are a projection of selective profit and loss as well as balance sheet items across all stakeholders. Important KPIs might differ, e.g. investors would more focus on return measures while the executive management also pays attention to more granular KPIs.

The forecast/planning process should be completed by an annotation, which includes e.g. assumptions or explanation of effects.

2.1. Purpose and content of the paper

This paper should provide guidelines and ways how to prepare a forecast / planning for an insurance company reporting under IFRS 17. As the content and the scope of the forecast / planning is highly company-specific the methodology presented should be considered as a possible way of coping with this task. Other possible solutions backing the intention to forecast the IFRS 17 financials of the company are possible and welcome.

A methodological approach combined with examples is presented for all IFRS 17 measurement models: the General Measurement Model (GMM), the Premium Allocation Approach (PAA) and the Variable Fee Approach (VFA). Due to the similarities between GMM und VFA business, chapter 3 covers these both models, while the PAA is described separately in chapter 4.

2.2. Assumptions and limitations

We refer to the following assumptions and limitations which form the basis of our work results and conclusions as outlined in the sections below:

- Data basis: Our paper assumes that certain data is available to be used for planning and forecast such as:
 - IFRS 17 as at the initial / starting reporting period. Depending on the methodology, these starting values are used as a basis to project IFRS 17 results for planning and forecast.
 - Certain volume measures from top down business planning such as premium income, new business sales, etc.
- All assumptions and management actions modelling should be in line with planning processes used for strategic decisions in the company. The assumptions for IFRS forecast and planning are supposed to be consistent with respect to other planning (such as Solvency II, local GAAP projection) where it is reasonable. The models applied for various projections are supposed to be consistent where feasible.
- Future variances: It may be assumed that the actual cash flows are equal to the expected cash flows as planned and, thus, future experience adjustments are expected to be zero.
- New business: When calculating planning and forecast figures future new business, e.g. new business expected during the planning horizon, should be included.
- Tax aspects: Our methodology for planning and forecast does not consider any tax aspects. For example, we have not investigated any tax implications for the methodology such as tax payments or tax losses and their recoverability.
- Consolidation within an insurance group: All results of this paper are based on a solo entity view. The methods described do not reflect any consolidated IFRS 17 statement and results.
- IFRS 9 / other IFRS besides IFRS 17: Contracts which will be measured under IFRS 9 or IFRS other than IFRS 17 are not in scope of this report. We solely focused on insurance contracts under IFRS 17.
- Planning process: Each company has to determine how to deal with differences between the planning in different divisions (e.g. the cost planning in Controlling vs. the expected costs in the actuarial model or capital investment planning vs. real world projection in model).

Company-specific approach:

While this paper shows possible ways of forecast / planning, companies can adapt them to their needs and circumstances: Depending on the business, available resources and efforts, the methods of each model can also be combined to perform the forecast and planning. For example, the driver or scaling-approach described in the next chapter can applied to project certain IFRS items and to provide input figures necessary to run stochastic projections at each future valuation date.

3. VFA and GMM business

3.1. Scope - Relevant income statement and balance sheet items for VFA and GMM business

The results of forecast and planning are supposed to cover at least the major items of the income statement such as insurance revenue and insurance service expenses as part of the insurance service result. In addition, the relevant balance sheet items such as the liability for remaining coverage (LRC) and the liability for incurred claims (LIC) should also be part of the forecast and planning. For the purpose of completeness, insurance finance income or expenses as well as non-directly attributable expenses may also be considered. It should be noted that while under VFA the impact of financial movements will generally be offset against Fulfillment Cash Flows and CSM, under GMM the impact will be directly shown in P&L. The OCI option under IFRS17 allows to recognize the impact of market movements such as interest rates within P&L or directly in OCI.

Remark for ceded reinsurance contracts: A loss recovery component needs to be projected if the underlying primary insurance business is expected to be onerous during the projection.

3.2. Possible methods for planning & forecast for VFA and GMM business

In the following sections different methods for planning and forecast for VFA and GMM business are described. The order of the different methods described does not imply a preference or ranking of the methods.

3.2.1. Approach using appropriate drivers

The main idea of this approach is that the relevant items of the IFRS 17 planning & forecast are not explicitly modelled or calculated but approximated by using appropriate drivers. As such, the IFRS 17 items follow the same pattern as the drivers.

The derivation and selection of drivers should be less complex than an exact calculation of IFRS 17 items and may refer to already existing sources (e.g. local GAAP planning or Solvency II / ORSA).

Examples:

- The release of the CSM could be linked to local GAAP reserves as proxy for coverage units from local GAAP planning.
- The IFRS 17 Best Estimate Liability (BEL) could follow the pattern of Solvency II BEL as input from ORSA

The quality of this approach is directly linked to the appropriateness of the drivers and thus the selection of drivers is key for the approach. Drivers may be composed as a linear combination of different drivers.

Drivers should be analysed to the extent how they change over time, for example driven by movements in the capital market environment (e.g. expected movement in interest rates) or by the underlying portfolio of the company (e.g. due to new business). Either the original source of the drivers directly reflects such changes, or the drivers should be adjusted accordingly. Sensitivities on how drivers change in different scenarios are helpful to assess the impact of the planning & forecast scenario on the drivers.

The granularity of the planning & forecast of the items can differ: E.g. the liability for remaining coverage (LRC) can be considered in total or split by its different components, the VFA / GMM business can be considered in total or split by portfolio or by group of insurance contract.

Concerning the impact of new business on the different items of the IFRS 17 planning & forecast, it should be considered if the impact of new business is already included in the drivers used or if it must be considered separately (see also comments on new business in the table below).

The following table shows a list of a possible drivers for selected, but not mandatory key line items of the IFRS 17 planning & forecast in consideration of different granularities:

Table 1: List of possible drivers for selected, but not mandatory key line items (VFA, GMM)

IFRS 17 item	Selection of drivers	Source	
Balance sheet			
LRC (in total)	Projected market values of assets (adjusted for an assumed impact of dura- tion mismatch)	Local GAAP planning, sensitivi- ties (impact of duration mis- match)	
LRC (in components)			
LRC – Best Estimate Liability (BEL)	(Adjusted) SII BEL	ORSA (including new business)	
LRC – Risk Adjustment	SII Risk Margin (adjusted), sum at risk, SCR,	ORSA	
	Risk Adjustment for new business can be considered separately (propor- tional to initial CSM or present value of new business premiums or initial BEL)		
LRC – CSM	Historical growth rate of CSM: subject to further adjustments to reflect po- tential changes in future	IFRS 17 results of the last years	
	Own Funds subject to further adjustments for CSM release	ORSA	
	Alternatively: Detailed estimate of CSM movements (see below)		

CSM movements		
CSM at inception (new business)	Analysis of historic relation of CSM at inception to new business premium driver: planned new business premiums	IFRS 17 results of the last years, local GAAP planning
Accretion of interest (GMM)	Projection of locked-in interest rates applied to CSM at start of period	
Other CSM adjustments (VFA)	Unlocking effect ("double delta"): to be captured by asset and liability move- ments – drivers like market value of assets and fulfilment cash flows / BEL	Planning for market value of as- sets, planning for fulfilment cash flows / ORSA
	Bow wave: company specific approach to be considered (e.g. market value of assets as driver)	
CSM Release	Use of explicitly projected or appropriate approximations of coverage units	Depending on coverage units
	Other possibility: ratio derived from last years' release of CSM compared to CSM	(e.g. local GAAP planning)
LIC	Local GAAP claims reserve	Local GAAP planning
	For non-life: Adjusted claims reserves based on reserve reviews / SII calculations	Claims reserves planning
IFRS 17 item	Selection of drivers	Source
Income Statement		
Insurance Revenue	As a result of the components below	

Expected Claims (excluding Non- Distinct Investment Components)	Projected claims	Local GAAP planning
Expected Costs	Projected expenses	Local GAAP planning
Premium variance relating to future service	0 (for future periods)	
Recovery of Acquisition cash flows	Acquisition cash flows proportional to local GAAP planning, amortisation factor derived from last years' IFRS 17 experience	Local GAAP planning
Release of CSM	Factor derived from last years' release of CSM compared to CSM	
	in case of detailed planning of CSM movements: Consistent to movement of CSM (see above)	
Release of Risk Adjustment	Residual from change in Risk Adjustment; Risk Adjustment allocated to new business can be considered separately	
	other possibility: ratio derived from last years' Release of Risk Adjustment compared to Risk Adjustment	
Insurance Service Expenses	As a result of the components below	
Claims incurred	Equal to expected	
Actual Costs incurred	Equal to expected	
Amortisation of Acquisition ex- penses	Equal to Recovery of Acquisition cash flows	
Reversal/increases in loss compo- nent	0 (for future periods)	
Insurance Service Result	As a result of Insurance Revenue and Insurance Service Expenses	

Concerning possible loss components, it may be assumed where appropriate that new business does not have a loss component at initial recognition and that for existing business no new loss component will be recognized during the planning period. For an existing loss component, any changes of the loss component might have a significant impact on the company's results due to a lacking compensation by the CSM. It has to be considered whether it might be appropriate for the planning period to use a simplified approach to estimate the impact on the results.

Insurance finance income or expenses should include the accretion of interest on LRC and may consider the use of the OCI options. These should be consistent and derived from the projection described above.

Certain IFRS 17 items like finance / insurance service result or operating profit are derived from projected and scaled items as they reflect a sum or are determined by the IFRS 17 methodology. For example, under the VFA approach, changes in the economic environment are generally offset by the CSM, Fulfilment Cash Flows and/or the OCI. Hence, these movements do affect the insurance service result only indirectly by a different CSM release as a result of changes in the CSM. Consequently, and in order to obtain consistent results, the insurance service result has to consider this specific treatment by allocating offsetting amounts to the respective IFRS 17 items according to the company's methodology.

The selection of appropriate drivers should be validated by applying theses drivers to data of past years and comparing the results to actual financial statements. Moreover, based on the experiences of the planning & forecast compared to the actual financial statements the selection of appropriate drivers might be improved or refined.

Overall, the approach of using appropriate drivers represents a simple methodology to forecast IFRS 17 with little or no involvement of complex actuarial projection models.

3.2.2. Explicit (stochastic) modelling using actuarial models

Stochastic projections are usually applied where there is material dependence from financial options and guarantees in the products or a material interrelation or direct participation in net assets and correspondingly a material dependence on financial assumptions. This is generally the case for participating business in Life /Health segment where there exists a very strong interaction between assets and liabilities and usually the VFA measurement model is used.

Throughout this section we assume that all required cash flows and figures needed for the planning are available in the actuarial models. For a possible choice of key line items we refer to table 1.

In this section we restrict our discussion to:

- Give a quick overview regarding the so-called risk-neutral (RN) valuation and real-world (RW) projection;
- Define an integrated stochastic cash flow model;
- Give some ideas on how to calculate the CSM and CSM-unlocking (see IFRS17.44-45) in this framework.

We first give a quick overview regarding the so-called risk-neutral (RN) valuation and real-world (RW) projection. While RN-valuation is the standard approach to compute SII technical provisions, IFRS17-PVFCF³ or the time value of options & guarantees, the notion of real-world has very often different nuances depending on the underlying purpose. More generally, RN-valuation is the common methodology to evaluate present values of capital market-dependent cash flows in finance.

There is no common framework in the insurance industry or in financial mathematics for a specific RW-valuation. Nevertheless, projections under RW-assumptions are broadly used for planning (in-

³ Present value of future cash flows.

cluding, e.g., SII and IFRS17 Planning, BaFin *Prognoserechnung*) and are, more generally, commonly used to compute the expected or scenario-dependent pay-off of financial instruments over time.

In a RN-valuation of a life insurance portfolio usually a stochastic Monte Carlo simulation of the cash-flows of the life company as a whole (including the modelling of interactions between asset and insurance contracts) is performed. A risk-neutral set of capital market scenarios that reproduces market prices of financial instruments is the basis for the Monte Carlo simulation. Cash-flows are discounted with the modelled risk-free rates of each individual scenario. The expected returns of all asset classes over all scenarios is equal to the risk free interest rates used for the valuation, i.e., the risk-neutrality in the scenario roughly translates into "in average all the financial instruments earn the same, irrespective of their risk profile".

It is typically agreed upon that in the real-world, investors are not risk-neutral (that is risk indifferent) but rather are risk-averse. Thus, they require a higher expected return in order to be incented to incur additional risk to their invested capital. This roughly translates into *"in real-world riskier financial instruments earn more"*.

This brings us to the topic of *real-world* projections. By this term we mean⁴, in contrast to *risk-neu-tral* valuation:

- The projection is based on real-world assumptions, e.g., equity has a higher expected return than AAA government bonds.
- The expected return of the asset portfolio very much depends on the investment profile (SAA strategic asset allocation).
- Management decisions on a real-world projection path, say in year T, can depend on riskneutral valuation of the portfolio in year T. But they are generally taken under a real-world expectation that is systematically derived and used for the real-world decisions taken by management.

In case there is a need to compute the development of the value of a financial instrument over time carrying capital market-risk, a combination of real-world projection and RN-valuations is needed: In each time step of the RW-projection a RN-valuation provides the value of the financial instrument. In this context, the financial instrument is meant to be the IFRS17 liability portfolio (under planning). When we assess its development by a combination of RW-projection and RN-valuation, we call this methodology nested RW-projection, meaning a Monte Carlo simulation in which the RN-valuation of the insurance portfolio is done by using an integrated stochastic cash-flow model at any time step of the deterministic RW-projection path.

We define an integrated stochastic cash flow model as follows:

- Integrated: for participating-business there exists a link between the asset and the liability side. This interaction is explicitly modelled, e.g., policyholder participation, investment income steering, generally speaking management actions.
- Stochastic: stochastic paths belonging to a stochastic RN-scenario are taken into account and the integrated projection is carried out independently for each path of the scenario.
- Cash flow model: cash flows relating to the insurance portfolio and to the company are modelled, e.g., claims, premiums, statutory results, investment income, several local GAAP figures.

⁴ As already mentioned before: different meanings are possible and might be common in other companies or industries.

This can be graphically represented in the following way, whereby by T we denote the current base date, by $RN_{T,j}$ the inner risk-neutral projection in T at timestep j and by RW_T the nested real-world projection in T.



Figure 1: graphical representation of a nested RW-projection

The projection consists of two nested loops:

- The external loop (blue arrows) is a deterministic RW-projection with the following properties:
 - Assumptions are derived and management behaviour is modelled in line with the actual steering of the company.
 - Future new business, if applicable, is taken into account for each year.
 - o Real world development of the assets is carried out.
- The internal loop (in green): a subsequent stochastic RN-projection $RN_{T,j}$ takes place, where the starting point of the projection is the result of the external loop till reporting date T, j. The special case $RN_{T,0}$ corresponds to the "standard" RN-projection for the reporting date T, that is, the risk-neutral projection which is used to produce the reporting figures for the reporting period T, e.g., for the calculation of the present value of future cash flows.

While with this methodology it is straightforward to calculate the expected (in RW sense) PVFCF and RA, the calculation of the CSM and of the CSM-unlocking is more complex. Indeed, for a normal closing the PVFCF and RA are usually a (more or less) direct product of an actuarial projection system. On the other hand, especially for VFA business, the CSM-unlocking and therefore the CSM itself and the CSM-release as well is a mixture of accounting and actuarial data.⁵

Hence for deriving the expected (in RW sense) CSM both planned accounting and actuarial data are in principle needed. These are usually derived with quite different methodologies and possibly assumptions. Of course, this may lead to inconsistency. One of the possible solutions is for instance to derive the needed CSM-Unlocking purely from the actuarial model.

From a pure model perspective for a company applying the VFA for the whole business, one can show the following. Given two RN-projections at reporting dates, say 1 and 0, the pertinent (model) CSM-Unlocking to be reported at reporting date 1 is very simplified calculated as the difference between the changes of the market value of the assets and the change of the present value of the future cash-flows (both according to the model). In formula:

⁵ E.g., to calculate the CSM-Unlocking the PVFCF is surely needed. On the other hand, under VFA measurement model, the change in fair value of underlying items is needed as well. This usually comprises accounting data related to assets' valuation under IFRS9 or other standards. This data/valuation is often not part of the actuarial models..

 $unl_1 = \Delta MV - \Delta PVFCF := MV_1 - MV_0 - (PVFCF_1 - PVFCF_0).$

We want to explicitly remark that this a very simplified formula and we do not claim here completeness. For instance, the above formula does not cover crucial points regarding underlying items (e.g., interest rate on own equity), risk adjustment, presence of non-VFA business (e.g. reinsurance, IFRS9 liabilities), presence of new business, etc. These issues are solved at single company level for a normal closing and brings to a suitable modification of the formula above.

By recursively utilising the formula one can now calculate the CSM-unlocking for the whole planning horizon and therefore derive the full CSM development⁶.



Figure 2: graphical representation of the calculation of the expected CSM-Unlocking.

3.2.3. Deterministic modelling based on roll-forward

Where the valuation of the insurance business is (materially) independent from changes in financial assumptions, deterministic calculations may be appropriate. For example, actuarial projection systems may be used for deterministic calculations of model points or seriatim policies.

3.2.4. Simplifications

Simplifications can be made for less sophisticated valuation of non-material portion of the inforce/new business portfolio or specific line items.

Remark for ceded reinsurance contracts:

It should be decided whether the non-performance risk (probability of default) of the reinsurer is taken into account.

⁶ Implicitly we assume here that the CSM-release-factors based on the coverage units are fully available in the actuarial projection system.

4. PAA business

4.1. Scope - Relevant income statement and balance sheet items for PAA business

The results of the forecast and planning are supposed to cover at least the major items of the income statement such as insurance revenue and insurance service expenses as part of the insurance service result. In addition, some items from balance sheet such as LRC and LIC, especially loss components, should be covered. For the completion of the information, insurance finance income or expenses as well as the non-directly attributable expenses of the income statement can also be considered.

4.2. Possible methods for planning & forecast for PAA business

In the following sections different methods for planning and forecast for PAA business are described. The order of the different methods described does not imply a preference or ranking of the methods.

4.2.1. Approach using appropriate drivers

Regarding the forecasting of profit and loss the following drivers can be considered for insurance revenue and insurance service expenses:

The <u>insurance revenue</u> can be estimated by considering the gross earned premiums available from local GAAP and an adjustment based on the historic ratio of insurance revenue under IFRS 17 and the gross earned premium from local GAAP. With respect to insurance acquisition cash flows, this approach also seems applicable. The discounting effect can be derived by using experiences from calculated sensitivities of previous valuation dates. In addition, in case of one-time effects within the historic data, the ratio shall be adjusted for these.

For determination of <u>insurance service expenses</u>, payments can be derived by using claims, costs and services from local GAAP.

- Since the LIC is the dominating item, for the estimation of the change of LIC several information needs to be considered. It is necessary to consider the earning patterns and discounting effects. Therefore, reference values from reserve appraisals or the ORSA could be applied. Discounting can be considered using a duration approach which is applied differentiating accident years. To improve quality, this assessment should be performed on a line-of-business basis to consider the specific characteristics of the underlying business. The change in LIC regarding risk adjustment can be estimated in a simplified way via the change in LIC.
- Regarding the loss component, various approaches are possible and allowed which each company must evaluate depending on its own business. One assumption may be that in general only the existing loss component is carried forward in the planning. The change in loss component can be estimated based on the run-off period.
- The expected costs and their amortization can be derived using local GAAP.

The insurance finance income or expenses are driven by the LIC assuming no discounting within the LRC. Within the forecasting relevant drivers are the LIC, interest rates sensitivities of the LIC and duration analysis of the LIC. Like the forecasting of the LIC itself an analysis per accident year seems reasonable.

Regarding the balance sheet and the OCI the following drivers can be considered for LRC, LIC and OCI:

The LRC can be derived based on the *Beitragsüberträge ("Unearned Premium Reserves"; "UPR")* from local GAAP using information regarding insurance acquisition cash flows (taking into account whether IFRS 17.59 a) is applied or not) and – in case of discounting – the relevant discounting

factors. This adjustment can be determined based on historic ratios between IFRS 17 and local GAAP considering one-time effects.

The LIC can be derived based on reserve reviews / reports and Solvency II calculations. In particular, the SII-projection within the ORSA can be taken as a relevant reference.

Within the assessment of the OCI similar methods can be applied as within the assessment of the LIC. Especially duration analysis depending on the specific cash flow pattern of the LIC should be considered.

Overall, the approach of using appropriate drivers represents a simple methodology to forecast IFRS 17 with little or no involvement of complex actuarial projection models.

IFRS 17 item	Selection of drivers	Source
Balance sheet		
LRC	Adjusted Beitragsüberträge / UPR	Local GAAP planning
LIC	Adjusted claims reserves based on re- serve reviews / SII calculations	Claims reserves plan- ning
OCI	Similar adjustments as within LIC; du- ration analysis	Sensitivities, Sol- vency II, Planning
IFRS 17 item	Selection of drivers	Source
Income Statement		
Insurance Revenue	Adjusted gross earned premiums	Local GAAP planning
Insurance Service Expenses	As a result of the components below	
Claims incurred	Equal to expected	Local GAAP planning
Actual Costs incurred	Equal to expected	Local GAAP planning
Amortisation of Acquis- tion expenses	Acquisition cash flows proportional to local GAAP planning, amortisation fac- tor derived from last years' IFRS 17 ex- perience. If IFRS 17.59 a) is applied amortisation factor is equal to 1	Local GAAP planning
Insurance Service Result	As a result of Insurance Revenue and Insurance Service Expenses	

Table 2: list of possible drivers for selected, but not mandatory key line item (PAA)

4.2.2. Approach using explicit cash flows

In general, IFRS 17 solutions for the closing process determine relevant IFRS 17 figures based on explicit (expected and actual) cash flows. Therefore, some planning and forecasting solutions are also based on this logic and apply the same methodologies. However, some simplifications might be applied for example regarding the granularity of the cash flows.

Within the PAA especially for the determination of the LIC, the application of explicit cash flows might lead to enhanced results compared to approaches that are based on drivers.

5. Sensitivities

Sensitivity calculations as part of the projections are not mandatory but can be considered to better understand the results and the robustness of the results. It is important to assess in advance which risks are relevant for the specific insurance company and to determine an adequate sensitivity level. The observations from the SCR calculations for Solvency II can help here. As the forecast/planning exercise can be time-consuming and can only provide indications due to the methodological simplifications and general assumptions, the costs and benefits of sensitivities must be weighed up and the results should be interpreted with appropriate caution.

Nevertheless, the results of the sensitivities can also induce management measures that help to stabilize or improve future IFRS results and make the insurance company more stress-resistant with regard to earnings planning. They can also help to derive relevant KPIs and triggers, make management objectives more sustainable or set up a controlling system.

6. Backtesting

Like sensitivities, backtesting helps to improve the robustness and quality of the model and the assumptions. Backtesting involves comparing actual with planned figures and analyzing deviations. Usually, a dedicated reconciliation analysis of the latest financial year is much more important than backtesting a multi-year projection. Analogous to the reconciliation analysis, the individual drivers (e.g. changed capital market, changed portfolio, changed assumptions) must also be identified and their impact quantified in backtesting.

Ultimately, backtesting must be accompanied by a follow-up process ensuring that identified differences are monitored and, if necessary, the methodology of the forecast is rectified.

7. Closing remarks

We have presented possible ways to prepare a forecast for the different IFRS 17 measurement models. Suggestions have been presented to project specific IFRS items based on a simplified or more sophisticated approach.

With the recent introduction of IFRS 17 companies will gain more and more experience if the chosen methodology is appropriate and the forecast covers has a sufficient granularity. In particular, a comparison of planned vs. actual results may provide insights for further refinements.

We expect that the approach continues to be further developed by the company such that the forecast of IFRS results will be an integral part of monitoring and steering of a company.