

EIOPA-OPSG-17-23  
15 January 2018

# **Asset Liability Management (ALM) and Financial Instruments**

**Position Paper**  
**by the EIOPA Occupational Pensions  
Stakeholder Group**

## Contents

<b>Introduction</b>	<b>3</b>
<b>Background and general Explanations</b>	<b>4</b>
<b>Selected specific Aspects in detail</b>	<b>6</b>

## Introduction

This position paper is prepared by EIOPA Pension Stakeholder Group (OPSG) as a general recommendation to EIOPA and National Competent Authorities (NCAs) of how IORPs can establish Asset-Liability-Management (ALM) procedures fulfilling certain minimum tasks and how these procedures can be developed and implemented. Further it discusses the relation between investment strategies and risk management in an ALM context, and how certain financial instruments can be assessed within this framework regarding their suitability for investment within the respective pension institution. Having in mind the work that has already been done on that topic the use of internal models for risk assessment and cash flow analysis in IORPs are also discussed.

This submission is prepared by a working party and approved by the requested simple majority of the OPSG members on 15 January 2018.

## Background and general Explanations

- A) The main difference between a pension institution (IORP) and other types of investors (e.g. investments funds) is that the IORP asset management activities are less focused on replicating or beating a certain benchmark (which is often market based). Instead IORPs focus on providing an acceptable level of risk, in order to sustainably finance a certain guaranteed or envisaged (resp. planned or targeted) level of present and future benefit payments. This can apply as well to DB schemes but also to DC schemes.
- B) Hence, the investment strategy, the mixture of asset classes and the use of certain financial instruments within an IORP's investment portfolio - incl. derivatives – is therefore normally tied to the nature and to the risk structure of the pension promise resp. pension target behind.
- C) As such, the investment strategy should therefore very much depend on the risk structure of the respective pension liability (if any) or of the respective pension target, including the demographic decomposition of the population of present and future beneficiaries, regulatory requirements, actual funding status, yield requirements, type of pension products (including health or accident insurance liabilities or similar features, if any) etc.
- D) The above indicates clearly that the Investment strategies, ALM and risk management functions in an IORP are closely linked together. Regulation and IORP governance should take this fact into consideration.
- E) Any choice of an investment strategy should be taken in a way, that the IORP can reasonably assume that the selected strategy provides an acceptable level of risk to secure pensions and that the guaranteed or envisaged benefit level can really be sustainably financed in the future. Of course, in order to determine this kind of “optimal strategy” weighing risk against return, many different approaches and methodologies can be used. We generally describe some of these possibilities and examples in the following.
- F) In this context we have to take into account, that that the landscape of pension institutions within Europe is quite diverse regarding personal capacity and size. Therefore, the ALM-methodology, which should be recommended, has to be proportional and adequate with regard to these circumstances, so that every pension institution is able to apply an ALM method, which it really can manage, and which perfectly covers its business and needs.
- G) At the same time, we also observe that pension institutions throughout Europe as such are highly individual. They are incorporated as different kind of legal persons, have to comply with local laws and requirements, and may have completely different benefit profiles. So, there cannot be one “standard-ALM-formula-set” or one mathematical standard model covering all these specificities. If we seriously think about something like a “pan-European ALM-framework”, we can only talk about a methodological architecture, within which detailed mathematical formulas can be applied, which may be different for different pension institutions, so that all the specificities of each single institution can be covered.

- H) EIOPA can and should help in developing such “pan-European ALM-framework” in a way, that EIOPA can define general principles, (non-binding) recommendations and minimum requirements for an effective and sound ALM within all European pension institutions. Some possible standards and methodologies, that have proved to be working and efficient in this regard, will be described in the following. EIOPA should as the pan-European supervisor overlook, that National Competent Authorities (NCAs) take sufficiently care, that the aforementioned “pan-European ALM-framework” (i.e. the aforementioned general principles and minimum requirements) are implemented in the respective member state and EIOPA can give guidance to the NCA how to currently supervise the ALM-processes in the single IORPs. However, for the avoidance of doubt, EIOPA has no mandate to take any action directly on the supervised IORPs themselves, this is left to the NCAs.
- I) NCAs have to form an integral part within a pan-European ALM-framework. They are responsible for the implementation of the “pan-European ALM-framework” (i.e. the aforementioned general principles and minimum requirements) in the respective member state. In this context they must supervise the IORPs in a way that they put the right ALM-processes in place, that the concrete methods and formulas are suitable to assess the risks of the IORP and to determine an investment strategy, which is optimized under ALM-aspects (this will be described more concretely in the following paragraphs). They should also ensure themselves, that all the tasks within this ALM-processes are fulfilled by the IORP’s staff with sufficient quality and they can take regulatory action against the IORP, if they come to the reasonable conclusion, that the ALM-process, the model and formulas and/or the staff working in this process do not have the sufficient quality and/or if the NCA comes to the (reasonably justified) conclusion, that the results of the ALM considerations are wrong or id that IORP draws the wrong conclusions out of them.
- J) Although highly regulated by labor and social law and regulatory bodies, locally as well as supra-national, IORPs are not managed by law and regulation only. The management and/or any relevant supervisory body have a clear role and responsibility to set the overall governance structure of the IORP. The governance documents should include overall rules, compliant to applicable law and regulation, for how the IORP administration should perform ALM processes and conduct risk management to the benefit of members, beneficiaries and other stakeholders.
- K) *Definition of Financial Instruments:* In the following we subsume under “financial instrument” every financial asset, which can (theoretically) be held by an IORP (before taking regulatory restrictions into account) and which can cover liabilities. All derivative financial products shall also fall into this category, irrespective, if they are related to assets or liabilities. In this context also e.g. interest swaps or longevity swaps, which may be used to change/modify the risk structure of liabilities, are financial instruments. Any deal, which an IORP may enter into, and which is not a pension deal in relation directly to the beneficiaries having an impact on the IORP’s financial risk position, is therefore a financial instrument in this context.

Financial assets, which potentially can be used are (the following list is seen to be not exhaustive):

- (i) securities (including, *inter alia*, listed shares, registered bonds, bearer bonds etc.) and money market instruments;
- (ii) new issued securities and money market instruments;
- (iii) units for collective investments for securities and units of collective investments trusts ("**Target Funds**"), notwithstanding that the investments of such Target Funds together with the other investments of the IORP taken as a whole, shall take the restrictions of the IORP which are defined by national regulatory law into account and shall apply the principle of risk diversification;
- (iv) sight deposits and deposits provided such deposits mature within 12 months;
- (v) derivative instruments;
- (vi) especially securities and money market instruments of different issuances issued or guaranteed by the same member state of the European Union, or its sub part public corporations, or Non-European member states or multinational organisations having a public character, in which at least one or more member states of the European Union are members;
- (vii) the IORP's assets may be invested in companies or investment vehicles, such as funds, which, according to their articles of association, may only acquire real estate or property required to manage real estate;
- (viii) directly owned land or buildings which are foreseen to be leased
- (ix) any other kinds of investments permitted by applicable national regulatory law.

It is in the responsibility of each IORP to thoroughly make up its mind regarding safety and quality (esp. credit quality) of the financial instruments used. NCA's should with the help of EIOPA put up a set of specific minimum requirements in this regard.

- L) Before using a certain financial instrument any IORP should assess, how the respective instrument behaves in a holistic ALM-context. That means, the IORP should build the financial instrument into its ALM-model (if not already done) and duly analyze, which impact the use of the respective financial instrument has with regard to the security of benefits as described above (or do a similar analysis with the same target behind).

This paper continues to discuss use of internal models in ALM and risk management, the input needed and the use of results from the model. The paper is also highlighting the upside of risk, in contrast to the regulation which is merely focusing on the downside of risk. Use of financial instruments in an ALM context is also discussed, as well as governance and organizational issues.

## Selected specific Aspects in detail

### 1. Types of ALM models

There are in general 4 different categories of ALM-models, that can be used:

- a. Sequential models
- b. Deterministic approach for assets and liabilities (targets)

- c. Stochastic simulation of assets and deterministic simulation of liabilities
- d. Full stochastic simulation of assets and liabilities (targets)

A method of type “a.” means that a general return requirement is mathematically determined from the liability or pension target level, which is necessary to finance that level of benefits. A second step implies testing different financial strategies against this requirement in order to identify a final strategy, which most probably will achieve this return requirement. This is the simplest approach one may think of, and it is suitable for relatively small pension institutions, but only if they have a sufficiently simple risk structure.

A method of type “b.” consists out of an actuarially based deterministic projection of the obligations (resp. benefit targets), costs, contributions and benefit payments into a long-term time perspective. Various investment strategies in different deterministic scenarios are examined to verify if they (in a deterministic assessment) can be expected to deliver sufficient results to cover all obligations resp. pay all targeted liabilities. This approach is relatively close to that described in “a.”.

A method of type “c.” consists out of an actuarially based deterministic projection of the obligations (resp. benefit targets), costs, contributions and benefit payments into a long-term time perspective and a stochastic (Monte Carlo) simulation of the assets side, taking account of all correlation effects between different asset classes for different investment strategies and of potential correlation effects between assets and liabilities. That means, that in a stochastic simulation generating a large number of different capital market scenarios, the corresponding expected development of asset value is projected in all these stochastic scenarios. This method can be ideal e.g. for larger pension schemes whose obligations, that have to be covered by assets, are determined using a tariff-based fixed actuarial discount rate (e.g. a German Pensionskasse). It is only applicable in case they do not have any other major additional risks sources, which should be taken into account. Especially this would mean, that this method can only be applied in cases, where e.g. biometrical risks are less relevant (e.g. in case of very large populations of present and future beneficiaries with sufficient risk buffers built into the mortality tables used for valuation and tariff setting).

A method of type “d.” is suitable where the IORP has also obligations (targets), that have to be covered by assets to a certain pre-defined extent and which are valued by using fluctuating market discount rates (e.g. UK pension funds). It is the most complicated and burdensome, but also the most exact and powerful methodology. But it has to be avoided that it becomes too complex to handle by smaller institutions (at reasonable cost), if the IORP have a not too complicated risk structure. In such cases an application of such method would mean an “over-engineering” and should not be done.

Independent of the method to be used each IORP has to define a suitable and transparent risk measure, which takes into account local law and individual requirements and needs of such IORP and its beneficiaries.

For any avoidance of doubt please note, that all these types of models are based on deterministic and/or stochastic cash-flow projections and hence do not coincide with any kind of valuation based model such as the Holistic Balance Sheet approach. . So, if we talk about coverage of obligations in the paragraphs above, then this might be related to some national law in some member states, which foresees certain minimum funding ratios, which have to be fulfilled (and hence have to be integrated by the IORP into the model). However, the key criterion of any such cash-flow based ALM analysis according to type b, c or d should

be, if the IORP always has enough cash available to pay all guaranteed resp. targeted benefits, when they become due.

## 2. Input data and assumptions

Any ALM-framework is depending on certain input variables and assumptions. There are on the one hand's side input variables that can relatively exactly be evaluated. For example, all input variables concerning the future benefits are based on the single legal relations between each single beneficiary and the IORP. For efficiency reasons a pension institution may group such single relations in its ALM model, if this grouping is reasonably expected not to lead to significantly different outcomes of the ALM-model. Of course, all relevant data about the type of benefit promise resp. benefit target level, projected cashflows (eventually stochastic, see above) has to be taken into account.

Sponsor support measures of course should also be included in a realistic manner in order to get a holistic and full picture. Here all support payments which are agreed upon the IORP and the employer, and which the IORP has a legal right to receive, should be taken into account. In this context it should be made clear, that measures and strategies, which are chosen and defined as a result out of an ALM study at first should serve the target to maximize the probability that pension promises (or pre-defined expectations in case of DC schemes) can be sufficiently and safely financed. That means that all target functions used in an ALM model should at first have the interests of present and future beneficiaries in scope and not those of the employer's. But nevertheless this they could (and should!) also have certain interests of the employer within their scope (since it must also in the future be attractive for the respective employer to offer the respective type of voluntary occupational pensions to the employees), if they are not in direct contradiction to the interests of beneficiaries.

On the other hand, there is a certain type of data, where typically assumptions are needed in order to be put into an ALM model. These are typically assumptions regarding e.g. the expected long-term future average returns of the different asset classes and their probability distributions, including related risk measures (e.g. standard deviations, higher moments etc.) and corresponding assumptions regarding the fluctuation of the discount rate for liabilities (if such a market related discount rate has to be applied). Additionally, assumptions have to be made regarding which interdependencies exist between the different returns of asset classes and also between such returns and the discount rate. There are several approaches to model such interdependencies: if one assumes a multivariate normal distribution (for all these variables) one can work with correlations. Then one would use correlation assumptions as input. These can e.g. be derived from statistical data bases out of the past.

Another approach, which is much more technical and hence can be found much more seldom in practice is a copula based approach. But this can turn out to be extremely burdensome and also often there are not enough historical observations available to construct a suitable copula with a sufficient confidence. So, one should in general not expect from pension institutions to follow that route. In order to derive the assumptions for the future returns of asset classes, again different approaches can be used, e.g.: historical mean values from the past (which is not the most suitable approach in the opinion of the OPSG), proprietary forecasts and expectations, consensus expectations in the marketplace (e.g. obtained from surveys done by the respective pension institution among different research

institutes, investment companies etc.) or combinations of different approaches (e.g. the minimum between the market consensus and the proprietary forecasts). There are also possibilities to derive such return assumptions mathematically from market information, e.g. using the Black-Litterman approach.

Also – if relevant - assumptions regarding the (random) fluctuation of liabilities (if any) resulting out non-anticipated changes in biometrical developments can be taken into account. They can mathematically be derived from past mortality trends and their random deviations. However, this complex exercise only seems to be reasonable, if it has to be assumed, that really significant risks are resulting out of such trend deviations. If not, this issue should be covered by building in some general prudent buffers in the liability development within the ALM-model.

### 3. **Time horizon of Projection models**

In models of the types “b.” to “d.” a projection of assets and liabilities (resp. benefits) into a longer period into the future has to be done, in case of “c.” and “d.” by generation of a sufficiently high number of random scenarios and projecting assets and liabilities resp. benefits in every single of these random scenarios. The projection horizon should be as long as can be done at a sufficient quality level with the actuarial data available (by experience this differs from country to country). Normally one would expect a period of at least 15 years (or longer).

### 4. **Cash-flow-based analysis**

The projections described above can only be done on the basis of a detailed analysis of cash-flows, which occur in the different generated scenarios. In this regard we explicitly refer also to the position paper of the EIOPA Occupational Pensions Stakeholder Group (OPSG) on EIOPA’s Opinion to EU Institutions on a Common Framework for Risk Assessment and Transparency for IORPs (EIOPA-OPSG 17-02).

### 5. **Funding and financing probabilities**

These projections from the model can now be evaluated with regard to the question, if the targeted benefits always could be paid or not and if regulatory funding requirements (if any) could always be met. For the latter question regulatory valuation standards, that are valid for the single member states should be used in the ALM modelling. The corresponding probability can be approximately determined by counting the number of random scenarios where all these requirements above have been met and divide this number by the total number of random scenarios. Strategically, one would expect, that then a decision in favour of that investment strategy (i.e. strategic mix of asset classes) delivering the highest probability of fulfilling always the aforementioned requirements is taken.

### 6. **Review frequencies for ALM analysis**

Although a strategy chosen should be envisaged to be pursued for a longer time period of several years it should regularly be challenged, if it is still suitable under ALM aspects to achieve the targets described above. Hence any ALM study shall be re-done in a certain time

frame (e.g. every three years). However, if input parameters or market conditions change to an extent, that it reasonably is to be expected, that the results of the latest ALM-exercise could not be valid any more, a new ALM study should be produced as soon as possible, even if the aforementioned review period (e.g. the three years) is not over yet. Under this aspect a regular process should be in place to review the relevant input parameters and market conditions and to make a qualified guess, if a new ALM study is necessary or not. This could be done e.g. once a year and in case of extreme market movements.

## 7. *The upside aspect of carrying risk*

Regulators are focusing on IORPs having sufficient reserves to meet shortfalls in value of financial assets below what is required as a minimum level to meet the IORPs future payment obligations to beneficiaries of the pension arrangement. The future payment obligations include both committed pension payments during the lifetime of the beneficiary, as well as yearly anticipated indexations and any insurance obligations towards the beneficiary.

All assets in an IORP are held with the purpose of providing a sufficient cash flow to meet committed payment obligations in mind, and it is natural that the key focus of regulators is on the downside risk. However, there is always an upside aspect of carrying risk connected to holding assets and having liabilities. IORP assets may be worth substantially more than expected and provide a higher cash flow, and the liabilities in the pensions beneficiary portfolio may prove to be less than calculated, and consequently requiring less cash than expected.

To illustrate we could use the following example: An IORP holds a portfolio of fixed property in attractive locations which increases sharply in value, at the same time as value of shares increases more than foreseen over a period of several years. At the same time the number of beneficiaries decreases as the sponsor has changed from a DB pension plan to a DC pension plan with an external service provider of DC pension plans. In addition, longevity calculations show that the IORP has overestimated expected life of beneficiaries over many years. Furthermore, the interest rate used for calculating present value of future payment obligations has been underestimated. Both these factors result in an overvaluation of the liability side of the balance sheet. A higher asset value combined with lower liabilities implies a higher asset reserve, and thus a lower risk for the IORP.

Asset and liability management in IORPs must be equipped with adequate and proportionate decision support tools for measuring and managing the volatility in the asset reserves. The fact that asset and liabilities fluctuate in value implies that asset reserves fluctuate. The fluctuations can be positive and negative. The regulators role has traditionally been to assure that the IORP always have sufficient asset reserves to meet worst case scenarios. This implies that the IORP is expected to have a portfolio of assets which in all likely market scenarios can generate sufficient incoming cash flow to meet expected cash outflow.

The main purpose of the regulations has therefore been to protect beneficiaries and other stakeholders against the negative consequences of risk. If the regulators stress tests show with a sufficiently high probability that asset reserves are more than adequate to meet future obligations, we may say that the IORP is overfunded. ALM and risk management

procedures in IORPs as well as local and central regulations should contain provisions and/or guidelines for bringing the IORP back to a normal risk structure.

In economic theory it is a well-documented fact that on the “efficient frontier” risk and return are highly linked (at least if certain risk measures are used). The higher the risk, the higher the expected return. As a reduced risk implies a lower return, it can be questioned if achieving a lowest possible risk is the best way to serve IORP members and beneficiaries. Managing assets and liabilities, and thus the risk profile of an IORP, requires defining an optimal asset portfolio structure which should be determined in the scope of an ALM structure.

Shortfalls in asset reserves are normally covered by funds from the sponsor company. It can also be solved (usually as a measure of last resort) by reducing the contributions and payout of pensions to beneficiaries, if so contained in the pension agreement. A corporation would normally handle an overfunded situation by repaying loans, paying a dividend or by a buy-back plan for their own shares. As IORP's are normally self-owned institutions funded by capital contributions from their sponsor, they do not have these tools to solve an overfunded situation.

The IORP has theoretically three options to adjust an overfunded position and to increase risk: repay funds to sponsor, increase contributions and payouts to beneficiaries or change composition of asset portfolio to increase risk, which would normally result in a higher return, favorable to beneficiaries. Which of these solutions are eligible for an IORP depends on local social and labor law, the local regulatory framework as administrated by the NCA's, the EU regulatory framework as administrated by EIOPA and by the by-laws of the IORP itself. However, funds should only be paid back to the sponsor and/or benefits should only be increased if sufficient probability can be proven, that the overfunded situation will be sustainably the case for the foreseeable (long-term) future.

So far regulatory activity has mainly been focused on the downside aspects of risk. As stated above carrying a risk also implies an upside potential. Risk and reward are as mentioned also normally highly correlated – the higher the risk, the higher the reward. ALM and Risk Management procedures are therefore highly interrelated. Any regulation of ALM or risk management by EIOPA and/or NCAs should therefore also consider the upside scenarios of risk and how to handle a situation of overfunding and large windfall profits. This also applies to IORP by-laws and national labor and social laws. The real issue is to define which risk profile in the balance sheet and expected cash flow structure is optimal for IORP beneficiaries and other stakeholders, rather than focusing mainly on downside risk and accumulating highest possible asset reserves. The OPSG would recommend to EIOPA to address this issue.

## 8. **New asset classes**

If new asset classes are considered to be used, it is appropriate first to evaluate, how their integration into the IORP's investment strategy would influence the probability in the ALM-model described above. An exception is to be made, if the characteristics of this new asset class are so similar to the ones of an asset class already contained in today's strategy (and hence also in the ALM-modelling), that they can be subsumed under the latter asset class

without having reasonably to expect any significant distorting of the ALM-model's results. Anyhow, an investment into a new asset class should be done only in case, that it does not lower the aforementioned probabilities in the ALM-model. Furthermore, the ALM-model should be used in a way as described above to determine, what an optimal investment amount into such new asset class could be. If this (or a corresponding) approach would be taken all over Europe, it can be made sure that only asset classes are used by pension institutions, which are really suitable to serve the pension institution's target to sustainably finance the present and future guaranteed or targeted benefits.

9. **Financial instruments:**

The similar holds for any financial instrument not actually used in today's financial strategy of the IORP. If a new financial instrument (either original or derivative) is considered to be used, it is appropriate first to evaluate, how its inclusion into the IORP's financial Portfolio would influence these probability in the ALM-model described above. A full run of the ALM-model is not necessary, if it can be shown otherwise, that it is not reasonable to expect that the entering into such financial instrument would lower the probabilities mentioned in paragraph 5. Anyhow, an investment into a new asset class should be done only in case, that it does not lower the aforementioned probabilities in the ALM-model. Furthermore, the ALM-model can be used in a way as described above to determine, what an optimal investment amount into such (new asset or) new kind of financial instrument class could be. If this (or a corresponding) approach would be taken all over Europe, it can be made sure that only financial instruments are used by pension institutions, which are really suitable to serve the pension institution's target to sustainably finance the present and future guaranteed or targeted benefits. In these evaluations all economic relevant aspects of the respective financial instrument shall be taken into account, including upfront premiums, costs, payoffs in different scenarios etc.

10. **Further Requirements for financial instruments**

Out of the aforementioned consideration it follows, that financial instruments have to be sufficiently safe and offer a sufficient return potential (so that they do not contribute significantly negative to the long-term probabilities to finance all guaranteed or expected pension payments). Also, financial instruments in general should be sufficiently liquid, so that they can be terminated within acceptable time-frames at tolerable discounts, in a way that they do not hinder necessary cash-outs. Hence the liquidity profile of all the IORP's financial instruments as a whole has to fit to the expected cash-flow schedule of the IORP. Furthermore, the portfolio of financial instruments has to be sufficiently diversified. All such diversification requirements shall be defined on a look-through-basis. That means, if an IORP's assets consist e.g. only out of units/shares of a certain investment fund, then a sufficient diversification can nevertheless be given, but only in the case, that the target investments of this investment fund are sufficiently diversified. Given the diverse landscape of IORP's and national investment markets throughout the EU it should be left to the national authorities to define more concrete diversification requirements together with the help of EIOPA.

11. **Understanding the financial instrument**

From the last points it already follows, that it is not possible to enter into any financial instrument, where the IORP by itself is not able to conduct a proper (quantitative) valuation, and hence not able to analyse how the market value of the instrument changes in different scenarios. This is a very crucial aspect, since it has to be assumed, that a financial instrument, which the IORP is not able to value by itself, is not fully understood by the IORP at all and hence should not be entered into. Vice versa, a correct valuation of a specific financial instrument can only be done, if there is a deep understanding of this instrument.

12. **Look-through**

For all kinds of indirect or packed investments in these types of analysis in general a full look-through-principle strictly has to be applied.

13. **Clustering and grouping**

Of course, if the underlying (packed) original financial instruments can be “grouped” by using an index sufficiently representing this underlying portfolio, this index can be used and any further look-through down to single assets would not be necessary. This assumes of course, that enough data regarding this index is available in a sufficient data quality.

14. **Staff qualification requirements for securities**

It has to be ensured, that all employees handling financial instruments are sufficiently qualified for those kinds of financial instruments they are dealing with. Also, they as persons have to be sufficiently trustworthy. National competent authorities should define for their respective member state, which kind of evidence, “proofs” or documents should be required in order to document sufficient qualifications, competence and trustworthiness.

15. **Governance and organisational issues**

The IORP II directive approved in the autumn of 2016 is reflecting the diversity in social and labor law in Europe, also reflected by different regulations by the NCAs for the local IORPs. Although the revised directive gives EIOPA a rather limited role in the regulation of IORPs, it seems that the EC is requesting a more extensive harmonization of NCA regulations and issuing guidelines for various regulatory elements, including transparency and protection of members and beneficiaries of IORPs. The revised IORP directive is setting standards, especially for management and governance functions and processes. Governance documents will now be required according to the revised directive.

The governance documents, including ALM and risk management procedures, should be reviewed regularly by the management and/or any relevant supervisory body, and should be followed up by adequate performance reporting on a regular basis. Applying the principle of proportionality, the relevant regulatory bodies should follow up that the IORP have appropriate control and risk management functions within a written and regularly updated governance structure.

Risk Management is a key area where some IORPs must set new and improved standards according to the new directive. According to IORP II the statement of investment policies should be reviewed at least every 3<sup>rd</sup> year, or immediately after changes. The investment policies are required to be made public. The role and responsibilities of the IORP management, the actuarial function, the risk function and outsourcing of investment management, if relevant, should be clearly defined. The Management of an IORP should be totally independent of their sponsor company regarding their decisions, which is already the case today in some member states. A well-defined performance reporting structure is as important for an IORP as for any other business activity, and should reflect the measurement of key risk indicators emerging from the risk analysis.

Failures and major loss incidents in IORPs may be referred to lack of proper internal reporting, control and risk management routines. Even lack of human common sense may be added. Despite the existence of a regulatory framework, IORPs may still fail due to lack of compliance or lack of proper internal risk management systems. Adequate ALM and risk management for an IORP will therefore always have a cost element. The IORPs are also required to be more transparent in their activities, including ALM and risk management, and provide better and easy-to-understand information to members and beneficiaries.

The ALM function will therefore be an area where EIOPA and the NCAs must focus on setting new regulatory standards, combined with standards and recommendations for risk management, including risk mitigation. The laws and regulations issued by relevant authorities, including issues related to ALM and risk management, must be formulated in a way that is not removing responsibility from the governing bodies of the IORP, and it must be clear that any governing body of the IORP cannot delegate its responsibilities to administration or external service providers. Any IORP governing body must be held accountable for all IORP's key actions, or lack of such actions, even if the work is outsourced. This includes especially the ALM, the definition of strategies and the risk management.

Risk management in an IORP is not only about the value of assets and liabilities on the balance sheet, but to a high degree on the cash flows these assets and liabilities are creating over time, combined with their volatility. The key issue for management and governance of an IORP is to preserve values and to create incoming cash flows sufficient to meet committed outflows at any time when they become due. The management and/or any supervisory bodies of the IORP must also keep in mind that it should also adjust and index pension payments regularly to maintain the purchasing power of members and beneficiaries as well as keeping pace with the general development of welfare in the society, if the pension contract obliges them to index or otherwise adjust benefits.

The implementation of the revised regulation and preparation of recommendations, as enforced by EIOPA and the NCAs, must ensure that management and/or supervisory bodies of the IORPs live up to the new standards. EIOPA and the NCAs must also have a clear understanding and mandate on which recommendations should be given on a European level and what should be given at a national level. The regulators should also be conscious of where the need for detailed recommendations stops and where governance and detailed working procedures should be left to the discretion of the single IORPs. The stakeholders to regulation, i.e. authorities, the IORPs, members, beneficiaries, employees and any IORP supervisory body members (if any), should all feel that regulation is creating value. This

implies that the cumulative benefits of the regulations should be larger than the cumulative cost, and that the cost of additional regulation should positively contribute to value creation.

16. **Outsourcing of ALM and risk management**

Some IORPs tend to outsource certain business processes to keep a lean organization. This also applies to ALM and risk management functions, even though these are core activities of an IORP. However, buying services externally may provide high expertise in areas where the IORP cannot justify or cannot provide the relevant expertise needed.

Any outsourcing of business activities must be based on Service Level Agreements securing that business processes are performed at governance standards defined by the IORP and complying with external law and regulations. Outsourcing implies that the service provider take on responsibilities to deliver according to the agreement, but does not remove any responsibility from the management of the IORP as stated in the revised IORP directive. Hence the IORP stays fully responsible for choosing an investment and financial strategy and for the economic consequences resulting out of such strategy chosen. Especially the autonomy and independence of the IORP, its supervisory bodies (if any) and management, must always be existent in all business activities and all situations, even if services are bought from the sponsoring company, which is sometimes the case.