

5th Spring School in Risk Management, Insurance & Pensions and Finance

St. Petersburg, March 17-19, 2016

INSURANCE DAY

Visiting Professor Dominique E. Beekers
KU Leuven, Faculty of Economics & Business / Insurance



<http://www.kuleuven.be/wieiswie/nl/person/00005837>
<https://be.linkedin.com/in/dominique-beekers-7b15045b>

ADVANCED ASPECTS of PENSIONS

Part I. Occupational pensions stress tests, quantitative assessments and risk capital methodology for Pension funds

Part II. Calculation of vested rights and the disclosure in the pension communication to the plan participant

Part I. Occupational pensions stress tests, quantitative assessments and risk capital methodology for Pension funds

<https://eiopa.europa.eu/financial-stability-crisis-prevention/financial-stability/occupational-pensions-stress-test>

<https://eiopa.europa.eu/Publications/Surveys/EIOPA%20IORPs%20Stress%20Test%20Report%202015%20bookmarks.pdf>

The aim of the exercise which EIOPA – the European Insurance and Occupational Pension Authority - requested in 2015 for Pension funds of 17 member-states including Belgium, was to identify potential vulnerabilities of occupational schemes against adverse market scenarios and the increase in life expectancy. Along with an introduction on risk capital methodology, an insight will be given during this session into the practical experiences which were encountered by those who participated in this exercise. Furthermore the results globally for Europe and all participants, published end of January 2016, will be commented on. But the main focus in this presentation is to show the quantitative yet simplified technique in practice and the overall context to be taken in to account. Conceptually the link with the holistic balance sheet principles underlying the new future proposed risk-based prudential regime, will be put forward. However these principles have been severely criticized by many stakeholders over time, but we could see in class if this criticism is really justified?

1.1 The Pension risk challenge and risk identification

Preserving the financial strength of a pension fund and as such protect the members and beneficiaries from insolvency, the fund should hold sufficient own funds to cover their losses in extreme events. Therefore, an adequate risk management system for the pension fund is set up, where risk identification and quantification is the basis for all risk management decisions. Different models can be tailored to different situations, as the risk capital base, stress tests and scenario testing.

1.2 Governance is key in each pension risk management system

Approved standards provide a solid basis for risk policies & strategies under control of the governance of the Pension fund or imposed by the regulators. During the session an overview is given as how these structures may be set up solidly and how risk/capital analysis can be integrated for compliance reasons.

1.3 The quantification issue and the limits for risk taking

Adequate capitalisation is an important element in pension risk taking, but how much is “sufficient capital” for covering volatility due to unexpected losses ? In addition, the cost of capital has to be earned on the risk capital allowing for economic value creation. Customized models can cover specific aspects of risk and capital. Stress testing is complementary to the economic perspective of risk capital.

1.4 Risk capital methodology

Available capital acts as a buffer against unfavourable developments. A unique definition however of required nor available capital does not exist. Capital definitions are driven by the valuation concept.

Own funds (necessary to cover losses in extreme events) may be artificially wrong due to inconsistent valuation of assets and liabilities.

Calculation risk capital assumes that all risk drivers have to be identified and classified into risk categories, which are taken in the necessary valuation steps. These will be shown through a revaluation of business under economic stresses. Pension business is mainly driven by market/ALM risk where diversification has to be taken into account. Pure accounting standards are replaced by the economic valuation view in fair value.

1.5 Stress testing & scenario analysis for use in solvency testing and regulatory purposes

Stress tests are seen by EIOPA as an important supervisory tool to examine the sensitivity of the occupational pensions sector to adverse market developments and to reach robust conclusions for the stability of the financial system as a whole and to enhance consumer protection.

It is a 2015 European wide exercise with a distinction made between DB & Hybrid plans, as well as DC plans.

Some elements of the practical quantification exercise and a simplified numerical example will be shown in class.

Suggested reading : [https://eiopa.europa.eu/Publications/Surveys/EIOPA-15-393-IORP_ST15_Templates-\(20150729\).xls](https://eiopa.europa.eu/Publications/Surveys/EIOPA-15-393-IORP_ST15_Templates-(20150729).xls)

https://eiopa.europa.eu/Publications/Surveys/EIOPA-BoS-15-072v2-Specifications_IORP_Stress_Test_2015.pdf

1.6 Introduction to the holistic balance sheet

The aim of the holistic balance sheet is to create a common tool for a European prudential framework, while taking into account the diversity in national occupational pension systems. The concept of the holistic balance sheet starts from an economic view of the balance sheet where all assets and liabilities have to be valued on a market consistent basis, i.e. making use and of being consistent with information provided by the financial markets. One step further, the holistic balance sheet should allow for capturing the existing diversity of occupational pension systems within Europe in one single balance sheet by adding two types of mechanisms, namely adjustment mechanisms and security mechanisms.

1.7 Criticism on the holistic balance sheet

The principles of the holistic balance sheet have been severely criticized by many stakeholders. These arguments will be put in perspective.

The audience will be invited into a short debate on these principles in order to see in class if this criticism is really justified?

Suggested reading:

<http://www.pensionseurope.eu/system/files/PensionsEurope%20Position%20paper%20solvency%20on%20IORPs%20-17-02-2015.pdf>

Part II. Calculation of vested rights and the disclosure in the pension communication to the plan participant

https://eiopa.europa.eu/Publications/Consultations/EIOPA-CP-15-011_CP_Comm%20tools%20and%20channels.pdf

EIOPA has published very recently a Consultation Paper on Good Practices on Communication Tools and Channels for communicating to occupational pension scheme members.

The important concepts of Pension Communication will be introduced with a specific focus on vested social rights - in opposite to funding techniques - into the Pension Communication. There are surely learning points in this context, illustrated by the intentions of EIOPA.

As an illustration, we introduce on an general basis possible actuarial calculation principles for vested rights in DB and DC schemes and show their relevancy for a good pension benefit statement.

2.1 The pension communication paradox

Vesting of pensions rights may be meaningless if they are not adequately disclosed and understood by the plan member. For that reason it is crucial to provide sufficient, understandable and timely information to members and beneficiaries. But what is sufficient, understandable and timely ? The complexity and the variety of pension systems and the multiple policy options may lead to tensions between at least the need for transparency, the need for technical correctness, the necessary simplification according to the financial literacy of the member and the legal responsibility of the communication.

These key elements will be put forward in this session

Suggested reading : <https://www.law.kuleuven.be/isr/colloquium2010.pdf>

2.2 Communication properties and the integration issue

Good communication may depend on a wide variety of issues to begin with the different levels or pillars of pension providers (state pension, occupational pensions, personal pensions) and different social professional categories (public servants, wage-earners, self-employed people). The integration idea might be simple : an individual belonging to more than one pension scheme will only have one source of information irrespective of the provider nor the category.

The creation of a fully integrated pension communication is still a political issue. These elements, which do not always allow for additivity, are set forward with a link to consumer protection.

2.3 Good practices on information provision (for DC schemes)

The key question remains to know whether the plan member need to take action to adjust his or her current retirement strategy, opening the questions if he or she will receive sufficient pension income and whether he or she will be able to cope with the level of financial risk. After all the member must be informed about what should be done to adjust the retirement planning if needed to do so.

Suggested reading :

https://eiopa.europa.eu/Publications/Reports/Report_Good_Practices_Info_for_DC_schemes.pdf

Recently, EIOPA has launched a consultation paper on good practices on communication tools and channels for communication to occupational plan members.

A practical list of good practices will be presented, documented and commented on.

2.4 Further aspects of the integration issue and digitalisation

Early February 2011, the European Commission has strongly put on the agenda the issue of adequate, safe and sustainable pensions throughout Europe.

Integration clearly has a cross-border dimension even more and more, since cross border labour activity has increased.

TTYPE (Track & Trace Your Pension in Europe) was set up in 2013 in order to help citizens for getting an overview of their personal pension data and entitlements or vested rights, at least to know the identity of the provider of such entitlements.

2.5 Social regulation & vested rights as a cornerstone for pension communication

What will be my entitlements or accrued pension liabilities ? What are accrued liabilities ? This item – which is not the same as funding nor finance aspects - is closely linked to social regulation and protection for the plan member.

The OECD – The Organisation for Economic Cooperation and Development – has set forth core rights and protections for plan members and beneficiaries that are generally intended to be implemented and monitored by pension regulators and supervisors, but rather heavily depending on the nature of a particular pension system.

The areas in which the member and beneficiary rights arise, will be developed with a special focus on benefit accrual and vesting rights, as well as the disclosure and availability of information.

Suggested reading : <http://www.oecd.org/finance/private-pensions/34018295.pdf>

2.6 A numerical example of actuarial calculation for vesting rights in DB & DC schemes

The actuarial profession emphasises the importance of pension communication for consumer protection. Vested rights may include vested benefits and/or vested reserves.

Vested rights mostly follow regulatory principles and may be significantly different between DB and DC schemes.

Calculation rules are set out here for each type of plan as in the (simplified) Belgian context for illustrative purposes.

Plan design and the definition of vesting can be discussed.

A special topic is vesting while early leaving in occupational pension plans.

2.7 Pension benefit statements and digitalisation capabilities

For closing, the format of a personal benefit statement will be discussed as well as the digital or web-enabled capabilities which may allow for forward looking information and simulations linked to the important life events which may occur during or after service in occupational pension plans.