

## ERM for Pension Funds – References and other material

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This paper explores the application of ERM-style techniques to occupational pension schemes (known as IORPs in the EU). Its abstract is set out below.

Presentations linked to this paper given to the Groupe Consultatif and to the Institute and Faculty of Actuaries are available [here](#) and [here](#). A Japanese translation of the paper is available [here](#). References contained in the paper are set out below.

### Abstract

*This paper explores the application of ERM-style techniques to pension funds. It uses the term ‘entity-wide risk management’ rather than ‘enterprise risk management’, even though both have the same acronym (‘ERM’), because many pension funds do not view themselves as business ‘enterprises’ as such. Some of the techniques that business enterprises have for managing risk (e.g. raising new capital from shareholders or branching into new business areas if existing ones have unattractive risk-reward characteristics) may not be open to many pension funds. The paper argues that the holistic approach to risk management (and governance) that is a hallmark of ERM is as appropriate to pension funds as it is to any other type of entity. This is the case whether the fund is defined benefit or defined contribution in nature, or a hybrid. It is also the case whether the ‘entity’ is deemed to be the fund itself, the sponsor or the two combined. Indeed, there are aspects of pension arrangements, such as the relationship between the fund and its sponsor, that lend added impetus to the use of ERM-style techniques in practical pension fund management.*

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<a href="#">Chapman, R.J., Gordon, T.J. and Speed, C.A. (2001)</a>	Pensions, Funding and Risk
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<a href="#">EC (2010)</a>	Towards adequate, sustainable and safe European pension systems
<a href="#">EIU (2009)</a>	Beyond box-ticking: A new era for risk governance
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<a href="#">ICAEW (2002)</a>	No surprises: working for better risk reporting
<a href="#">ICAEW (2005a)</a>	Risk management: Risk Management among SMEs
<a href="#">ICAEW (2005b)</a>	Risk management: A guide for finance professionals
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<a href="#">Lam, J. (2003)</a>	Enterprise Risk Management
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