IRMFI IRM Autumn/Fall 2019 ISSN 1752-8887

 \overline{FI} \overline{JRMFI}

JRMFI JRM

FI JRMFI

FI JRMFI

JRMFI JRM

Journal of

JRMFI JRM Risk Management in **Financial Institutions**

Special issue on Enterprise **Risk Management**

Volume Twelve *Number Four*



Contents

Special issue on Enterprise Risk Management

Editorial How should an Enterprise Risk Management department be organised?	
And what should it do? Greg Hopper, Global Head of Enterprise Risk Management, Goldman Sachs	296
Enterprise Risk Management Special Issue Papers	
Creating the bank enterprise risk management function of the future	
Hans Helbekkmo, Partner, Cindy Levy, Senior Partner, and Olivia White, Partner, McKinsey & Company	297–310
What is enterprise risk management? Jeffrey Brown, Michael Duane and Til Schuermann, Partners, Oliver Wyman's Financial Services Practice	311–319
Enterprise risk management: Towards a comprehensive yet practical enterprise risk function Fabrice Fiol, Managing Director and Deputy Head of Enterprise Risk Management, Société Générale Americas	320–327
The enterprise risk management function in financial institutions Greg Hopper, Global Head of Enterprise Risk Management, Goldman Sachs	328–341
Stress testing and the representative bank model Paul H. Kupiec, Resident Scholar, American Enterprise Institute	342–373
Risk Management Papers Machine learning in risk measurement: Gaussian process regression for value-at-risk and expected shortfall Sascha Wilkens, Senior Manager, BNP Paribas	374–383
Strategic technology risk: Core systems replacement Patrick McConnell, Consultant and Martin Walker, Director of Banking and Finance, Center for Evidence-Based Management	384-400

Editorial

How should an Enterprise Risk Management department be organised? And what should it do?

Since the financial crisis, financial institutions have focused much more heavily on capital adequacy and therefore on measuring all risks across the enterprise in a coherent and consistent manner. Over that same period, the risk profile of financial institutions has continued to increase in interdependent complexity. As a consequence, interest in enterprise risk management (ERM), which can assess risk across the traditional risk silos, has continued to grow as well.

Some financial firms have responded to these trends by setting up separate ERM departments while others are considering establishing an ERM function or updating an already existing ERM function. Structuring an ERM department is not straightforward, however, as ERM functions must be sharply distinguished from the activities that the mature risk disciplines such as market, credit and operational risk already perform. How should an ERM department be organised? And what should it do?

To help financial institutions answer these questions, we have invited contributions from authors who have experience in ERM to present in this special issue their views on how an ERM department should be configured and what its functions should be. Generally speaking, there is consensus on the core activities of an ERM function — defining the risk appetite of the firm, risk identification and firmwide risk governance although the precise definition of those activities varies. Hans Helbekkmo, Cindy Levy and Olivia White in 'Creating the Bank Enterprise Risk Management Function of the Future' emphasise that these core functions need to be dynamic so that they can rapidly respond to a firm's changing profile. Risk identification, for example, rather

than being a relatively static exercise should focus on developing surveillance procedures that quickly identify not only new and emerging risks but also weakness in controls. Jeffrey Brown, Michael Duane and Til Schuermann in 'What Is Enterprise Risk Management?' explain the organising principles that determine how an ERM function should be specified and how its functions should work together, highlighting, for instance, the importance of linking a comprehensive risk identification exercise directly to the firm's risk appetite. In contrast to Brown, Duane and Schuermann, who suggest that stress testing is a 'nice-to-have' function in ERM, Fabrice Fiol in 'Enterprise Risk Management: Towards a Comprehensive Yet Practical Enterprise Risk Function' argues that stress testing is an integral ERM function. Greg Hopper in 'The Enterprise Risk Management Function in Financial Institutions' agrees that stress testing is an essential function of an ERM department and also argues that ERM departments should develop special expertise in assessing and managing new and emerging risks that are multidimensional in nature. As firmwide stress testing is of interest to ERM specialists, we also include in this special edition Paul Kupiec's paper 'Stress Testing and the Representative Bank Model', which illustrates the importance of using firmspecific rather than representative firm models to obtain accurate results in firmwide stress tests.

> Greg Hopper Global Head of Enterprise Risk Management Goldman Sachs Gregory.Hopper@gs.com

© Goldman Sachs, 2019

ISSN 1752-8887

JOURNAL OF

Risk Management in Financial Institutions

OR	RDER				
\bigcirc	Please enter my subscription to the current volume, Volume 12, (4 issues) at:				
	, .	Europe £350	N.America US\$505	Rest of World £365	
\bigcirc	Please enter my subscription to the previous volume, Volume 11, (4 issues) at:				
	, .	Europe £350	N.America O US\$505	Rest of World £365	
000	I enclose a cheque made payable to: Henry Stewart Publications Please invoice me/my company Please charge £ /US\$ to my Mastercard/Amex/Visa (Please delete as appropriate) (Only subscribers in North America may pay the Dollar rate. All other countries will be charged in Sterling)				
	Card No:		Expiry date:		
	Name of Cardholder: Please provide card billing address if different from the firm/organisation address. If it is the same please write 'same'				
	Postcode				
	Mr/Mrs/Miss/Ms First	Name	Last Name		
	Position/Department				
	Organisation				
	Address				
	Country	Z	Zip/Postcode		
	Tel:	F	ax:		
	E-mail:				
	Type of Organisation				

PLEASE PHOTOCOPY AND SEND THE COMPLETED FORM TO:

Henry Stewart Publications, Ruskin House, 40-41 Museum St, London WC1A 1LT, UK Tel: +44 (0)20 7092 3465 Fax: +44 (0)20 7404 2081 E-mail: gweny@henrystewart.co.uk or

Henry Stewart Publications, North American Business Office, The Bleachery, 143 West Street, New Milford, CT 06776, USA, Tel: +1 (860) 350 0041; Fax: +1 (860) 350 0039; E-mail: hsp@subscriptionoffice.com