

# Model Validation: A practical perspective



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# Agenda

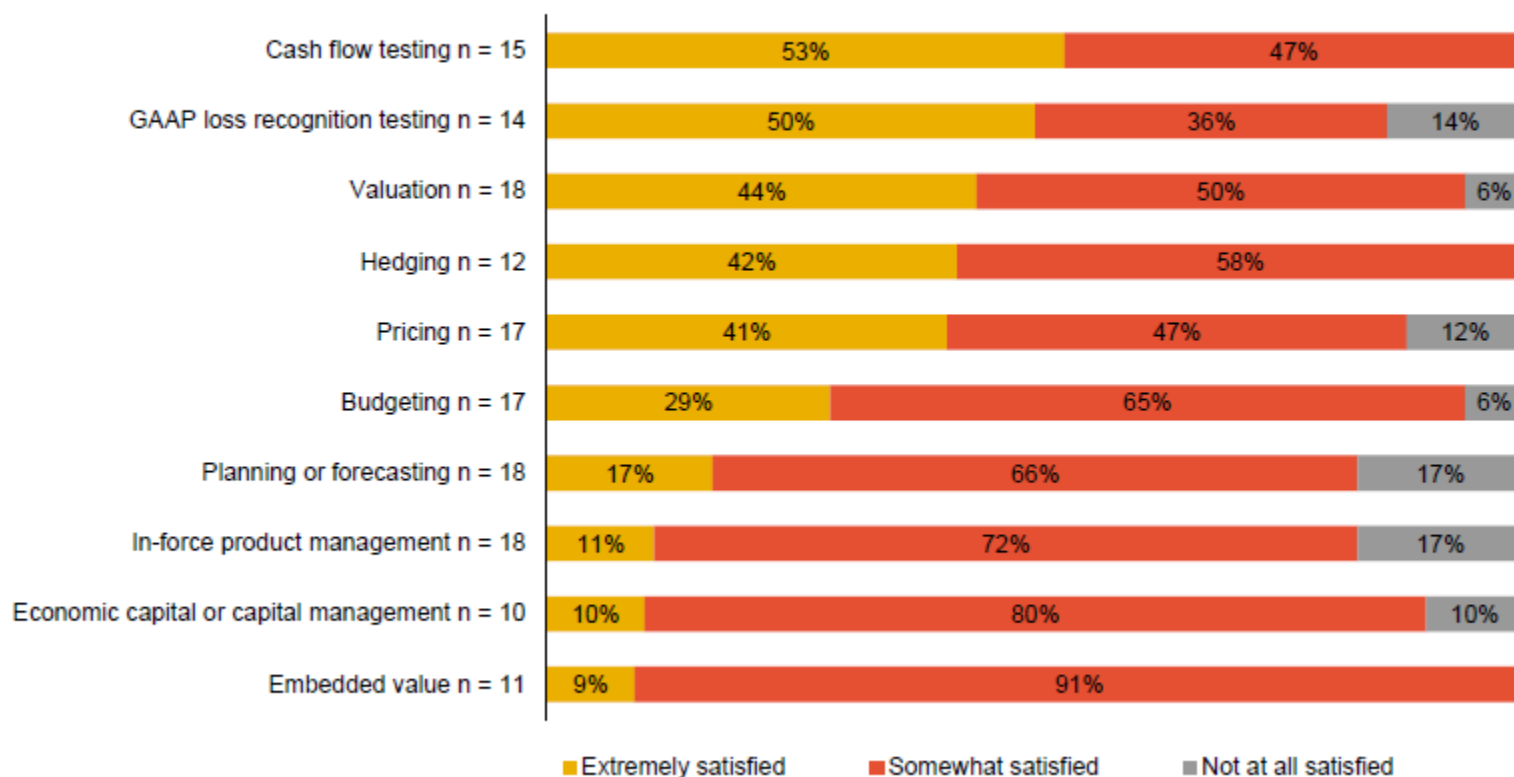
- Industry perspective
- Regulator perspective
- Regulatory requirements

# Industry Perspective

Are companies doing enough?

# Industry Perspective

How *satisfied* are you with your *current model governance and controls*?



Source: Towers Watson September – October 2014 CFO Survey

# Regulator Perspective

## Are companies doing enough?

1. Be aware of the regulatory requirements that are out there
2. Determine which ones are relevant to you
3. Understand the intent behind these requirements

### Regulatory requirements

- SR 11-7 – Supervisory Guidance on Model Risk Management
- Systemically Important Financial Institution (SIFI) designation
- Sarbanes-Oxley (SOX)
- US ORSA (Effective January 1st, 2015)
- Solvency II Internal Model Approval Process (IMAP)

# SR 11-7

## Life Insurers with Federally Chartered Bank or S&L Subsidiaries

Parent Name	Symbol	Total Assets (\$Bil)	Subsidiary	Subsidiary Total Assets (\$Mil)
ING Groep N.V.	ING	\$1,688	ING Bank, FSB	\$82,417
Allstate Corp.	ALL	\$135	Allstate Bank	\$1,044
American International Group Inc.	AIG	\$860	AIG Federal Savings Bank	\$1,268
Ameriprise Financial Inc.	AMP	\$96	Ameriprise Bank, FSB	\$1,476
Genworth Financial Inc. (1)	GNW	\$107	Inter Savings Bank, FSB	\$844
Hartford Financial Services Group Inc (1)	HIG	\$288	Federal Trust Bank	\$585
Lincoln Financial Group (1)	LNC	\$163	Newton County Loan & Savings, FSB	\$7
MetLife Inc.	MET	\$502	MetLife Bank, NA	\$10,274
Phoenix Companies Inc. (2)	PNX	\$26	American Sterling Bank	\$181
Principal Financial Group Inc.	PFG	\$128	Principal Bank	\$2,237
Prudential Financial Inc.	PRU	\$445	Prudential Bank & Trust, FSB	\$1,942

(1) Pending approval of applications filed Nov. 14, 2008 with the OTS to become thrift holding companies.

(2) Pending deal announced Jan. 6, 2009 to acquire American Sterling Bank.

Source: SNL Financial

Data Source: Regulator filings via Highline Financial.

1. Model Development, Implementation, and Use
2. Model Validation
3. Governance, Policies, and Controls

# SR 11-7 (cont'd)

## Validation Framework

1. Evaluation of conceptual soundness, including developmental evidence
2. Ongoing monitoring, including process verification and benchmarking
3. Outcomes analysis, including back-testing

# Important financial institution (SIFI) Requirements





# Sarbanes-Oxley Act (SOX)

1. The model itself
2. Definition of model inputs and assumptions
3. Control environment surrounding the model



# US ORSA

“The Summary Report should demonstrate the insurer’s process for model validation, including factors considered and model calibration.”

# Internal Model Approval Process (IMAP) for Solvency II

