

Quantitative assessment of further work on solvency of IORPs

EIOPA Pensions Stress Test & Quantitative Assessment Launch Event Frankfurt, 19 May 2015

This presentation ...



- ... is meant to provide an overview
- ... is meant to provide practical information
- Technicalities of Reporting Spreadsheet will be covered later in this event
- Questions?

Objectives of Quantitative Assessment



- Quantitative Assessment (QA) will facilitate EIOPA advice on solvency of IORPs
- QA will produce data on six examples of potential prudential frameworks based on holistic balance sheet (HBS)

QA Timeline and Process



- Participants submit data to national supervisors by **10 August 2015**
- Participants will communicate with national supervisors, not directly with EIOPA

QA Package



- Technical Specifications
- Reporting Spreadsheet
- Qualitative Questionnaire
- Supporting Spreadsheets ("helper tabs")





- QA is based on "holistic balance sheet" (HBS)
- Technical Specifications deal with valuation of HBS and calculation of Solvency capital requirement (SCR)
- Valuation also used for HBS in stress test

QA Technical Specifications (2)

elopa

- Examples of supervisory frameworks are derived from 2 Baseline Scenarios
- Information is requested on value of best estimate of technical provisions using adjustments to the risk free interest rate curve
- Valuation date is 31/12/2014





- Balancing item approach
- Benefits and contributions to be included in cashflows
- Risk Margin: More flexibility





- Principle based approach to valuation of sponsor support
- SCR: Modified approach to calculation of loss absorbing capacity
- SCR: Not all (sub-)modules are mandatory

Qualitative Questionnaire



Spreadsheet and Word template, asking for additional information on

- Risk margin
- Sponsor support
- Cash flows to be included in technical provisions
- Impact of potential prudential frameworks
- Methodology of deriving values for potential future frameworks
- etc.

Reporting Spreadsheet



- Reporting Spreadsheet includes DB/hybrid stress test and QA
- In the remaining part of this presentation we will look into the part of the Reporting Spreadsheet dealing with QA

Reporting Spreadsheet -Overview



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	This sheet	QA & ST	P.Index	GoTo		#										
	Explanations on the structure and content of this spreadshe		P.Readme	GoTo		#										
	1. Participant information	QA & ST	Participant	<u>GoTo</u>		#										
	2. Information related to the national regime	QA & ST	CurrentRegime	GoTo		#										
	3. Holistic balance sheet information	01.0.57				#										
	Common part of the holistic balance sheet for all scenarios	QA & ST	CommonData	GoTo		#										
	4. Stress test scenarios	ST	StressTestScenarios	GoTo		_										
	5. Baseline scenarios					#										
	Baseline Scenario 1	QA	BaselineScenario1	GoTo		#										
	Baseline Scenario 2	QA	BaselineScenario2	GoTo		#										
	6. Examples of supervisory frameworks					#										
	Results Example 1 derived from the baseline scenario	QA	Example1	GoTo		#										
	Example 1 which may be completed by the participant	QA	Example1.alt	GoTo		#										
	Results Example 2 derived from the baseline scenario	QA QA	Example2	GoTo		#										
	Example 2 which may be completed by the participant Results Example 3 derived from the baseline scenarios	QA	Example2.alt	GoTo		#										
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	Results Example 4 derived from the baseline scenarios	QA	Example4	<u>GoTo</u> <u>GoTo</u>		#										
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	Results Example 5 derived from the baseline scenario	QA	Example5	GoTo		#										
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	8. Spreadsheet template qualitative question															
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Reporting Spreadsheet – CommonData (1)



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Reporting Spreadsheet – CommonData (2)



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Reporting Spreadsheet – Baseline Scenarios (1)



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Reporting Spreadsheet – Baseline Scenarios (2)



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Reporting Spreadsheet – Baseline Scenarios (3)



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Reporting Spreadsheet – Baseline Scenarios (4)



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nfügen ≪ Fe Zwische	ausschneiden opieren ÷ ormat übertrage nablage	$\begin{vmatrix} Calibri & 11 & A & A \\ F & U & & A & & E \\ S & Schriftant & S \\ \end{vmatrix} \equiv = \begin{vmatrix} C_{1} & C_{2} & C_{2} \\ F & C_{2} & C_{2} \\ \hline \end{bmatrix}$	≫]₽ Ze	ilenumbruch erbinden und ze	Star	ndard + % 000 % Zahl			Tabelle	IORP_Input IORP_Label Standard Formatvorlagen	IORP_Resul	Normal 2	Einfügen Löschen Fo Zellen	Tmat ▼ AutoSumn ↓ Füllbereich ↓ Cöschen ▼	Sortieren und	Suchen und Auswählen -
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A	В	С	D E	F	G	Н	1	J	к	L M	N	O P		S T	U	v
9										SCR.2.36 Total adjust	tment for loss a	bsorbency (Adj)	# -90	-	0 Adjustmer	nt for loss-a
0		III - Details of formula	Baseline Scenario 1			Participa	nte are not	required t	o complete	e the intangible asset						
2						-	ule, but ma									
3		Capital requirement for Operational	risk					-		jible asset risk			Capital require	ement for Mark	et risks	
4			Gross risk	Adj.	Net risk		Net risk	Adj.	Gross risk						Net risk	Adj.
5	SCR.4.5	Risk-Module level value	1 #	-1	C)	0	0	0	Risk-Module level value		SCR.5.4, SCR.5.6	Risk-Module le	vel values	0	-31
5		Contributions based risk component	0 #		Allocation o	f adjustme	nt to HBS it	ems					Interest rate risk		0	-10
·		Gross contributions received (12 months prior t	5 #	-1	Legally enforcea	ible sponsor su	ipport	-					Equity risk		0	-21
3		of which pure DC	- #	-	Non-legally enfo		or support	-					Property risk		0	-1
9		Contributions of previous 12 months	5 #	-	Pension protecti	ion scheme		-					Spread risk		0	-4
0		of which pure DC	- #		Pure conditional	benefits		-					Currency risk		0	-2
1		TP based risk component	1 #	-	Mixed benefits			-					Concentration ris	sk	0	0
2		Tech. Prov. for pension obligations	194 #	-	Pure discretiona			-								
3		of which pure DC	0 #	-	Ex post benefit r			-								
4		Annual expenses for pure DC (12 months)	- #	-	Reductions in ca	se of sponsor (default	-								
5 6													Countral and writer		and the latter state	
o 7		Capital requirement for Counterpart	Net risk #	Adi.	Gross risk	Diversif.	Exposure					SCR.7.9		ement for Pensi	Net risk	Adi.
8	SCR.6.13	Risk-Module level values	Net risk #	-68			Exposure 68					SCR.7.10		volvoluos	Net risk	-19
)	3CN.0.15	Nisk-Woulde level values	U #	-00	00		/ 00	<u> 27272727272727272727</u> 27	tion of adju	istment to HBS items		3CK.7.10	Stress on Mortali		0	-13
0						Sponsor	r support:	Pension	Pure	Mixed Pure	Ex post Rec	luctions	Stress on Longev		0	-19
1							Non-legally					onsor	Stress on Disabil		0	0
2							eenforceable		benefits	benefits		efault	Benefit option		0	0
3	SCR.6.44	SCR for counterparty default risk - type 1	0 #	-68	68	-		-2		-		-66	Expenses		0	0
4	SCR.6.58	SCR for counterparty default risk - type 2	O #	0				-	-	-		-	Revision		0	0
5		Calculation of counterparty default risk mo	dule excluding no	on-legally en	forceable spor	sor support	(SCR.3.5))						CAT		0	0
6	SCR.6.44	SCR for counterparty default risk - type 1	0 #	-68	68	3 -	-	-2	-	-		-66				
7	SCR.6.58	SCR for counterparty default risk - type 2	0 #	0	-			-	-	-		-				
8																
 → 	P.Index	P.Readme Participant CurrentRegime	CommonData	StressTes	tScenarios B	aselineScena	rio1 Basel	ineScenario2	Example	1 🕀 : 🔳						
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Reporting Spreadsheet – Baseline Scenarios (5)



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verview	II - Capital requirements Baseline Scenario 1			lated cell								#										
verview				n results								#										
												#										
	Own funds	Own fun	ds compare	d to capital re	quirement							#										
		# SCR	OF - SCR		OF- MCR							#										
	Total own funds (OF) 0		0 0	0	0							#										
_												#										
	Main results of the capital requirement calco	ulations										#										
1	Risk module	# Net risk	Adj	Gross risk	Diversif	Exposure						#										
	Market risk	# (0 -31	32	-6	37						#										
	Counterparty default risk	# (0 -68	68	0	68						#										
	Pension liability	# (0 -19	20	0	20						#										
	Intangible asset risk	# (0 0	0	0	0						#										
-	Operational risk	# (0 -1	1	0	1						#										
	Basic SCR (BSCR) before intangible asset risk	# (D	90								#										
	Basic Solvency Capital Requirement (BSCR)	#	D	90								#										
SCR.1.19	Solvency Capital Requirement (SCR)	#	D	90								#										
												#										
	Loss-absorbing capacity of techncial provisio											#										
	Adjustment loss-absorbing capacity	to specifi	sLAC applies to IORP	,								#										
		risks	as a whole																			
	Part of the max. sponsor support available	# 10										#										
	Part of the maximum PPS available	# 15										#										
	Discretionary / Conditional Liabilities	# 5										#										
SCR.2.44	Adjustment for loss-absorbency (AdjTS)	# -8	9 -	Allocation of	HBS items t	to Adj						#										
	Net deferred taxes in the HBS	# (p -	-	Legally enfor	rceable sp	onsor support					#										
	Magnitude of the DT shock	#	0 -		Non-legally	enforceabl	le sponsor suppo	rt				#										
	Post stress net deferred taxes	#			Pension pro							#										
	Deferred taxes adjustment (AdjDT)	#	-	1	Pure conditi		fits					#										
	Adjustment for loss-absorbency (Adj 1)	# -8			Mixed benef							#										
	Maximum value for Adj2	# 23	D		Pure discret							#										
SCR.2.48	Adjustment for loss-absorbency (Adj2)				Ex post bene							#										
	NAV* Total adjustment for loss absorbency (Adj)	# -9					sponsor default -absorbend SCR.	16 SCD 2 19				#										
56h.2.30	rotar aujustment for loss absorbency (Auj)			U	Adjustitien	101 1055-	dopondengoux.	, JUN.2.10				#										
•	P.Index P.Readme Participant (CurrentRegin	Cam	monData S	Areas Test Ca		BaselineScen	nial Dave	lineScenario2	Exam	alat											
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Reporting Spreadsheet -ExampleX



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		Big Ben Pension Fund									20	014 - GBP (N	IILLIONS)									
		IORP			Exam	ple 1 of s	supervisory	y frame	ework	EIOPA-1	15-393-IORP_S1	15_Templates	(20150508)									
		Status of this sheet:	Filled Co	ompleting quant																		
		I - Holistic balance sheet	Example 1		rides the outcor				>goto index	II - Capita	l require	ments	Example 1			ut cell						
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					s which conside										Mair	n results						
				calculation is n	nore appopriate		on the next															
		Assets		*	Liabiliti					Own funds			<i>c</i>			d to capital re	· · · · · · · · · · · · · · · · · · ·	1				
		Sponsor support and PPS	91	210 1018	l balance sheet	value				Excess of ass		lities	-6 #	SCR 69	OF - SCR -75	MCR 24	OF- MCR -30					
		Sponsor support Contingent assets	51							Total own fun	ias (UF)		-0 #	09	-75	24	-50	,				
		Non-legally enforceable sponsor sup.		- Exce	ss of assets ove	r liabilitios				Main result	s of the can	ital require	ment calcul	ations								
		Other	91 1		33 01 033213 012					Risk module		rtarrequire		Netrisk	Adi	Gross risk	Diversif	Exposure				
		Pension protection scheme								Market risk			#	2	-30	32	-6	37				
		Investments (excluding pure DC)	113	# 16 Risk	margin					Counterparty	default risk		#	68	0	68	0	68				
		(Re)insurance / SPV recoverables	0	# 201 Best	estimate of TP	- Total (wit	thout pure DC)		Pension liabi	lity		#	1	-18	20	0	20				
		Unconditional benefits	0 :	# 201 Un	onditional benefi	its		Í		Intangible as:	set risk		#	0	0	a	a 1	0 0				
		Pure conditional benefits	0 :	# 0 Pu	e conditional ben	efits				Operational r	risk		#	0	-1	1	0	1				
		of which: ex ante benefit reductions	0 :	# 0 o	f which: ex ante be	enefit reduct	tions			Basic SCR (BS	CR) before in	tangible ass	et risk #	69		90						
		Mixed benefits	0 1	# 0 Mi	ed benefits					Basic Solvenc	y Capital Re	quirement (B	SCR) #	69		90						
		Pure discretionary benefits		# Pu	e discretionary b	enefits				Solvency Cap	ital Requirer	nent (SCR)	#	69		90						
		Ex post benefit reductions		# Ex	oost benefit reduc	tions																
		Reductions in case of sponsor default		10101010101010101	luctions in case o					Loss-absorb	ing capacit	of techncia	al provisions			isms						
		Assets held for pure DC	0 ;		defined contril		bilities			Adjustment	loss-absor	bing capacit	у	LAC applies								
		Deferred tax assets	0 ;		rred tax liabilit	ies								to specific								
		Other assets (excluding pure DC)	6 :	# 0 Oth	er liabilities										as a whole							
		Items with loss absorbing capacity:		Tiering of fina	sial assots	_				Part of the mo			ble #	109								
		Max value of ex-post benefit reduction		Financial asset			113			Part of the ma Discretionary			#	0								
		Max value of ex-post benefit reduction Maximum sponsor support value	200		s e covered with f	inancial as				Adjustment			diTS) #	-21		Allocation of	HBS item	s to Adi	00000000			
		Maximum PPS value	200	Financial asset		arrenur do:	-104			Net deferred t	·		<u>.,,</u> #	0			1	forceable spor	nsor support			
										Magnitude of			#	69					sponsor suppo	rt		
										Post stress ne			#	0			-	rotection sche				
										Deferred tax	kes adjustm	ent (AdjDT)	#	0	-	0		itional benefit				
		Nature of loss-absorbing capacity and	I balancing iter	m approach						Adjustment	for loss-ab	sorbency (A	dj 1) #	-21		0	Mixed ben	efits				
		LAC of technical provisions and/or securit	ty mechanisms a	apply to IORP as a	whole (i.e. not lim	ited to speci	ific No			Maximum va	lue for Adj2		#	88			Pure discr	etionary bene	fits			
		Does IORP apply balancing item approach	n and fullfill con	ditions SCR.2.20 -	CR.2.22?		No			Adjustment	for loss-ab	sorbencv (A	di2) #	-1			Ex post ber	nefit reduction	ns			

Reporting Spreadsheet – ExampleX.alt



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	Status of this shee		ompleting q	uantitative as	ssessment:	Yes																
	I - Holistic balance sheet	Example 1 Alternative							oto inde: overviev	II - Capital I	requirements	Example 1 Alternative			lated cell							
	Please complete this sheet if you o		narato calc	ulation of the	ovamplo i	more app	ropriato (I		overviev	V		rucemotive			n results							
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	Assets				iabilities					Own funds			Own fun	ds compare	d to capital r	equiremen						
	Sponsor support and PPS	0	# 119	Total balanc		це				Excess of assets	over liabilities	119		OF - SCR	MCR	OF- MCR						
HBS.7.1										Total own funds		119		119		119						
HBS.7.5	Contingent assets																					
HBS.7.1	8 Non-legally enforceable sponsor su	p	119	Excess of as	sets over li	abilities				Main results o	f the capital requ	uirement calcu	lations									
	Other		=							Risk module			# Net risk	Adj	Gross risk	Diversif	Exposure					
HBS.8.1	Pension protection scheme		*							Market risk			# (0 0	0	0	0					
	Investments (excluding pure DC)	113	= .	Risk margin				HBS.6.1		Counterparty de	fault risk		# (0 0	0	0 0	0					
HBS.9.1		0	# C	Best estimat		otal (withou	ut pure DC	HBS.4.1, HB	S.5.1	Pension liability			# (0 0	0	0	0					
	Unconditional benefits		*	Uncondition						Intangible asset			# (0	0	0	0					
	Pure conditional benefits			Pure conditi				HBS.5.23		Operational ris			# (0 0	(0	0					
	of which: ex ante benefit reductions					fit reduction:	s	HBS.5.56		-) before intangible		# (0							
	Mixed benefits	0000000000		Mixed benef				HBS.5.23 HBS.5.23		-	Capital Requirement		# (1						
	Pure discretionary benefits Ex post benefit reductions		-	Pure discret Ex post bene	1 - C			HBS.5.23 HBS.5.57	SCR.1.1	solvency Capita	l Requirement (SCR	()	#	*		12222222222222222		1				
	Reductions in case of sponsor default			Reductions			lt	HBS.5.60		Loss-absorbin	g capacity of tech	ncial provisio	ns and secu	rity mecha	nisms							
	Assets held for pure DC	0	# C	Pure define							ss-absorbing cap			sLAC applies								
HBS.11	10 Deferred tax assets			Deferred tax	liabilities			HBS.11.10		, i	· · ·	· · ·	to specific	to IORP								
	Other assets (excluding pure DC)	6	# C	Other liabili	ties								risks	as a whole								
										Part of the max.	sponsor support av	ailable	# (- 0								
	Items with loss absorbing capacity			f financial ass	ets						mum PPS available		# (- 10								
	Max value of ex-post benefit reduction		Financial				113				onditional Liabilitie		#(-								
HBS.7.2			-	to be covere		ncial asset	0		SCR.2.4		r loss-absorbenc	y (AdjTS)	# (- 10		HBS items						
SCR.2.7	Maximum PPS value	1 000000000000000000000000000000000000	Financial	assets - Liabil	nies		113			Net deferred tax Magnitude of th							orceable spo y enforceabl					
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	Nature of loss-absorbing capacity a	nd balancing ite	m approach								r loss-absorbenc		# (5		Mixed bene						
SCR.2.1					. not limited	to specific	No			Maximum value			# (5		-	tionary ben	efits				
SCR.2.1							No				r loss-absorbenc	1			haadadadadada	1	nefit reductio					

Reporting Spreadsheet – Overview.QA



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			regime	Scenario 1	Scenario 2		Alternativ		Alternativ		Alternativ		Alternativ		Alternativ		#	
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		ailability	QA	Filled	Filled	Filled	Not filled	Filled	Not filled	Filled	Not filled	Filled	Not filled	Filled	Not filled		#	
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	Assets																#	
	Investments		113	113	113	113		113		113		113		113		113	#	
	Sponsor support		0	91	49	91		49		91		91		0		91	#	
	Pension protection scheme		0	C	0	0	-	0		0		0	-	0		. 0	#	
	(Re-)insurance recoverables		0	c	0	0	-	0	-	0		0	-	0		. 0	#	
	Other assets		6	6	6	6	-	6		6		6	-	6		6	#	
	Total assets		119	210	169	210	-	169	-	210	-	210	-	119		210	#	
																	#	
	Liabilities																#	
	Best estimate technical provisions		154		156	201	-	159	-	201	-	194		201		194	#	
	unconditional benefits			201	. 159	201	-	159	-	201	-	201	-	201		201		
	non-unconditional benefits (incl. pure DC)			C	0	0	-	0	-	0	-	0	-	0		0		
	ex post benefit reductions/reductions in case of sponsor default			-6	-3	0	-	0	-	0		-6	-	0		-6		
	Risk margin			16	13	16	-	13	-	16	-	16	-	16		- 16	#	
	Other liabilities Total liabilities		0	0	0	0	-	0	-	0		0	-	0		0	#	
	lotal liabilities		154	210	169	217	-	172	-	217	-	210	-	217		210	#	
	Excess of assets over liabilities		-35		0	-6		-3		-6		0		-97		. 0	#	
	Excess of assets over nabilities		-30	U U	0	-0	-	-3		-0		0	-	-97		0	#	
	Solvency Capital Requirement (SCR) at the 99.5% level	ſ	0	0	0	69	-	46	-	67		0	-	11		. 0	#	
	- gross solvency capital requirement			90	67	90		67		90		90				90	#	
	- loss-absorbency technical provisions and security mechanisms			-90	-67	-22		-21		-24	-	-90				-90	#	
	Surplus (SCR)	-	-35		0	-75		-49		-73		-75		-108		-		



Thank you!

Any questions?