Die Deutsche Kreditwirtschaft

Comments

on the ECB guide to internal models

Risk-type-specific chapters

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The **German Banking Industry Committee** is the joint committee operated by the central associations of the German banking industry. These associations are the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR), for the cooperative banks, the Bundesverband deutscher Banken (BdB), for the private commercial banks, the Bundesverband Öffentlicher Banken Deutschlands (VÖB), for the public-sector banks, the Deutscher Sparkassen- und Giroverband (DSGV), for the savings banks finance group, and the Verband deutscher Pfandbriefbanken (vdp), for the Pfandbrief banks. Collectively, they represent more than 1,700 banks.

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Page 2 of 25 Comments Risk-type-specific chapters dated November 7, 2018

ID	Chap- ter	Section	Para- graph	Page	Type of comment	Detailed comment	Concise statement as to why your comment should be incorporated
1	Credit risk	2 Data Mainte- nance of the IRB Approach	15(a), 17, 18	9-10	Clarifica- tion	The requirements for data qual- ity vetting go beyond the re- quirements of the EBA Guideline on PD Estimation and the RTS on Assessment Methodology re- garding the IRB Approach. In particular, it should be made clear that it is not absolutely necessary to establish an inde- pendent, dedicated unit for vet- ting data quality.	The establishment of a separate, independent unit for data quality management would lead to a disproportion- ately high level of effort and is not necessary for ensur- ing independent data vetting.
2	Credit risk	3.4 Use of pooled data	40	17	Amend- ment	In order to avoid bias in risk pa- rameters estimates, multiple- rated counterparties should also be counted consistently in the numerator and denominator of the default rate in pool level analyses. This procedure will ensure that the pool used as a basis for developing and re- viewing the pool model is struc- turally matched as well as pos- sible to the portfolios of the in- dividual institutions that use the pool model for valuing their rel- evant portfolios and, in particu- lar, that large counterparties	Paragraph 40 of the Credit Risk chapter sets out a con- crete requirement for pool solutions for dealing with cli- ents for which ratings are prepared by more than one of the institutions participating in the pool (common obli- gors). A requirement is that the existence of such com- mon obligors may not lead to distortions or double- counting for risk parameter estimates. This requirement is then further expanded on by requiring in particular that each common obligor is only taken into account once in the calculation of the one-year default rate. We consider this requirement to be inappropriate, in particular because the exclusion of multiple-rated coun- terparties in the sense of the "single count only" re- quired here would in fact lead to bias in many portfo- lios: the scope of the vast majority of rating systems

Page 3 of 25						
Comments Risk-type-specific	chapters	dated	November	7.	2018	

			are adequately included in the	(e.g. all rating systems in the RSU pool solution) in-
			data pool.	cludes clients of different company sizes (e.g. in the
				sense of different ranges of total assets or revenue).
				However, the frequency of common obligors, i.e. coun-
				terparties within the data pool that are rated by more
				than one institution, is directly related to the size of the
				company, for example: large counterparties (e.g. DAX
				groups) usually have relationships with more than one
				credit institution much more often than smaller counter-
				parties (e.g. small medium-sized companies). Excluding
				multiple-rated counterparties, therefore, leads to a
				structural change in the resulting "pool without double-
				counting": due to the less frequent occurrence of com-
				mon obligor scenarios, the smaller counterparty scenar-
				ios are now significantly overrepresented, not only in
				comparison to the "pool including double counting", but
				also in comparison to the portfolio of the individual in-
				stitutions participating in the pool. The structure of the
				"pool without double counting" thus differs to a greater
				extent from the portfolio of the individual institutions
				than the "pool including double counting" precisely be-
				cause of the exclusion of multiple-rated counterparties,
				which leads to increased risk due to limited representa-
				tiveness of the pool within the meaning of Article
				179(2)(b) of the CRR.
				Take, e.g., two institutions A and B participating in the
				same pool rating system that each have 1,000 large
				and 1,000 small corporate customers. Among the large
				corporates they have 900 common obligors, among the
				small corporates only 100.

Page 4 of 25 Comments Risk-type-specific chapters dated November 7, 2018

	, 2010	In this example, the composition of the pool only corre-
		sponds to the share of large and small obligors of the
		individual institutions (50 percent each) if common obli-
		gors are double counted. In a "pool with single counting
		of common obligors" the relative shares of large (27.5
		percent) and medium-sized companies (72.5 percent) in
		the pool would differ systematically from those of each
		of institutions A and B.
		A similar effect can also be achieved with regard to
		other dimensions, e.g. specific sectors, countries, etc. It
		is completely unclear what an approach to counting
		common obligors only once, but at the same time
		avoiding the bias effects described above, might look
		like. At the moment, we presume that there is no possi-
		bility of ensuring such an exclusion without correspond-
		ing bias as a side-effect. The requirements of the ECB
		Guide do not provide any guidance for this.
		But requiring "single counting" would underrepresent
		the institution's perspective in the pool data in a com-
		pletely different respect, namely with regard to the con-
		sideration of all relevant information: an analysis ad-
		justed for double counting will systematically only be
		able to address one of the perspectives of the banks in-
		volved; the perspectives of the institutions whose rat-
		ings are excluded due to common obligor scenarios are
		not taken into account in the pool. This means that a
		requirement to count common obligor scenarios only
		once also leads to the exclusion of relevant and ration-
		ally usable available data for model optimisation and
		validation.

Page 5 of 25			
Comments Risk-typ	e-specific chapters o	dated November	7, 2018

3	Credit risk	3 Data Re- quirements	42(c)	18	Amend- ment	Institutions using a pool model should not be required to have an aligned process for manag- ing distressed debtors.	From our point of view, this requirement constitutes in- admissible interference with the business practice of the institutions and has no basis in supervisory law. In ad- dition, the purpose of this requirement is in any case not apparent with regard to the estimation of PD.
4	Credit risk	4 Probability of Default	52	21-22	Amend- ment	The review of models separately for individual sub-portfolios would be very time-consuming. The extent to which, for exam- ple, an analysis based on geo- graphical regions would be fea- sible/meaningful in the case of globally active borrowers, is also questionable.	The proposed granularity does not currently result from regulatory requirements and would lead to a very high validation effort with questionable added value.
5	Credit risk	4 Probability of Default	79(b)	30	Amend- ment	 The preference given to using overlapping 1-year time windows over non-overlapping time windows for certain analysis results, in particular in the case of 79(b) for the significant difference of the observed average default rate between overlapping and non-overlapping time windows is not appropriate without further clarification of the cause of the difference. In particular, depending on the rating philosophy, the historical average PD measure should be backtested against the historical 	The reason for the difference of the observed average default rate between overlapping and non-overlapping time windows in the case of paragraph 79(b) could also be due, for example, to a different clustering of time windows under poor and good economic conditions.

Page 6 of 25	
Comments Risk-type-specific chapters dated November 7, 20)18

						average default rate on the ba- sis of the same time windows. However, most test procedures require the sample to be inde- pendent. This is clearly no longer the case if the default periods overlap.	
6	Credit risk	4 Probability of Default	80	30	Clarifica- tion	There is a requirement to com- pare the observed average de- fault rates on the basis of inter- nal data with those based on external data. The difference also has to be analysed with re- gard to the adequacy of the margin of conservatism (MoC). It is unclear what the connec- tion is to the MoC. It should be clarified that any differences between the default rates do not necessarily lead to the application of an MoC.	For example, if the different average default rates are the result of a different risk structure of the portfolios internally versus the rest of the pool, but the risk driv- ers of the model reflect this risk structure sufficiently well (e.g. internal PD measure vs. the rest of the pool is also correspondingly different), then no MoC should be required.
7	Credit risk	4 Probability of Default	80	30	Clarifica- tion	We consider it necessary to clarify what is meant by a "sep- arate" calculation. In particular, we consider it necessary to clar- ify that, for the calculation at pool level, there is no require- ment to artificially exclude the data of the relevant institution from the data pool.	Paragraph 80 sets out a special requirement within the context of the requirements for calculating the long-term default rate in the event that an institution also uses calculations based on pool data in addition to its internal data: specifically, there is a requirement that the calculation of the default rate at pool level in this case should be carried out separately from the calculation of the default rate at the institution level.

comme	піз кізк-тур	e-specific chapters dat	ed November	7,2018			
		e-specific chapters dat					Excluding data from an institution would be completely alien in the conceptual framework for pool models. One of the key aspects of the pool model approach is the de- velopment and calibration of the model at the level of the entire data pool. This enables institutions to access models that are more differentiated, accurate and sta- ble in their application to the portfolio of an individual institution than any model that could be developed on the basis of the portfolio of an individual institution. The pivotal point here is the data pool as a whole. An insti- tution-specific "pool without the institution" resulting from the artificial exclusion of the data of an individual institution cannot in any way play a meaningful role in optimising or reviewing the pool model. Quite apart from that, a "pool without the institution" perspective does not offer any added value for model validation even for the individual institution: if the amount of the institution's own data is small compared with the size of the data pool, the comparison with the "pool without the institution" does not lead to any other outcomes than the comparison with the pool as a whole. On the other hand, if the share of the individual institution's data in the pool is large, the "pool without the institution" no longer represents a meaningful benchmark for the institution because the model is not optimised, calibrated or validated based on this data
8	Credit	5.1 Realised	91(a)	36	Amend-	In our opinion, it is neither ef-	
	risk	LGD			ment	fective nor appropriate to demonstrate representativeness	

Page 7 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Page 8 of 25	
Comments Risk-type-specific chapters dated November 7, 2018	

Comme	піз кізк-тур	e-specific chapters da		7,2010			
						based on non-relevant dimen-	
						sions.	
						If a dimension demonstrably	
						has no influence whatsoever on	
						credit risk, it is also irrelevant	
						for representativeness. Requir-	
						ing evidence of representative-	
						ness is an unnecessary effort	
						because the evidence does not	
						pursue any objective and is	
						hence obsolete.	
9	Credit	5.1 Realised	97(c)	38	Clarifica-	As an approximation, paragraph	
	risk	LGD			tion	97(c) allows the change in ex-	
						posure values at two consecu-	
						tive dates to be considered in-	
						stead of specific dates. Even	
						taking into account the require-	
						ments (justification, documen-	
						tation), we believe that this is a	
						very positive simplification for	
						the banks, especially for very	
						small cases and certain types of	
						accounts (e.g. current ac-	
						counts).	
10	Credit	5.1 Realised	103	41-42	Amend-	Reviewing models separately	The proposed granularity does not currently result from
	risk	LGD			ment	for individual sub-portfolios	regulatory requirements and would lead to a very high
						would be very time-consuming,	validation effort with questionable added value.
						especially since paragraph 121	
						of the EBA Guidelines on PD	
						and LGD estimation, to which	

Page 9 of 25				
Comments Risk-type-specific	chapters	dated	November 7,	2018

Comme	ins Risk-typ	e-specific chapters date		7, 2016		
						reference is made, lists 18 po- tential risk drivers, only some of which are relevant for the ac- tual IRB portfolio. The extent to which, for example, an analysis based on geographical regions would be feasible and expedient in the case of globally active borrowers, is also highly ques- tionable.
11	Credit risk	5.3 Risk quan- tification	109	44-45	Clarifica- tion	The (a) to (e) list in this para- graph represents alternative approaches for identifying the maximum "time-to-workout". It is not clear what the added value is of performing all of these analyses. For example, alternative determination meth- ods can be used to validate the results. However, the choice of the method to be used should be a matter for the institutions in order to ensure methodologi- cal freedom.
12	Credit risk	5.3 Risk quan- tification	110(b)	45-46	Amend- ment	In particular for portfolios with potentially very long recovery periods (e.g. loans secured by real estate) in which there is also an extremely high variabil- ity in the recovery periods (e.g. clarification through curing or

Page 10 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Comments Risk-type-specific chapters dated November 7, 2018	
	liquidation by private sale, com-
	pulsory auction, dependence on
	available capacity at local courts
	and demand at compulsory auc-
	tion dates), we are highly criti-
	cal of the proposal to base the
	analysis of defaults exclusively
	on a given year (vintage),
	which we regard as inappropri-
	ate.
	In order to be able to determine
	an appropriate estimate of the
	losses still to be expected, insti-
	tutions must in particular be
	permitted to take other criteria
	into account (such as existing
	characteristics with regard to
	the institution's own recovery
	processes as well as the dura-
	tion of the default, the pro-
	cessing status, the unit in
	charge, the status of recovery,
	etc.). Restricting modelling
	freedom at this point by limiting
	it solely to completed defaults
	in one year for which a similar
	LGD could be observed at a
	given time, leads here to dis-
	torted results that do not con-
	sider all the information availa-
	ble.

Page 11 of 25	
Comments Risk-type-specific chapters dated November 7,	2018

Comme	mments Risk-type-specific chapters dated November 7, 2018									
13	Credit	5.3 Risk quan-	113(a)	46	Clarifica-	In addition, it is possible that this approach cannot ensure the availability of a sufficient num- ber of observations.	Example: Client with 2 facilities Facility 1 = 20m EUR			
	risk	5.3 RISK quan- tification	113(a)	40	tion	Paragraph 113(a) proposes two options for aggregating the re- alised LGDs weighted by the number of defaults. In our view, the volume-weighted aggrega- tion of the facilities at client level is the more appropriate approach, since only then will the expected loss amount of the client: Expected loss amount =PD*LGD*EAD be determined in line with ex- pectations. In addition, a purely number- weighted aggregation of LGDs could provide incentives for ma- nipulation by splitting over-col- lateralised financing portions with expected lower realised LGDs into several facilities and combining under-collateralised financing portions with expected higher realised LGDs into a sin- gle facility only, if possible.	Example: Client with 2 facilities Facility 1 = 20m EUR and Facility 2 = 80m EUR plus realised LGD1=20% and realised LGD2=25%. The client's actual realised loss is: 20%*20m + 25%*80m = 24m Volume-weighted averaging of the realised LGDs results in an LGD for the client of 20%*20/100 + 25%*80/100 =24%, which, for 100m EUR EAD, corresponds to the actual re- alised loss of 24m EUR. By contrast, in the case of the number-weighted aver- aging of the realised LGDs via the facilities, the loss amount for the client is 22.5%, i.e. 22.5m EUR for 100m EUR EAD, which underestimates the actual loss amount by 1.5m EUR.			

Page 12 of 25	
Comments Risk-type-specific chapters dated November 7, 2018	

14	Credit	E 2 Dick guop	115(a)	47	Amend-	Decaraph 115(a) evolucitly	
14		5.3 Risk quan-	115(a)	47		Paragraph 115(a) explicitly	
	risk	tification			ment	notes that, in a bottom-up ap-	
						proach, the sub-quotas (e.g.	
						separate recovery rates for the	
						collateralised and unsecured	
						portions) should be independ-	
						ent, or any dependency must	
						be reflected in the modelling.	
						This is not explicitly required if	
						a total LGD is estimated di-	
						rectly, possibly with the same	
						components as explanatory var-	
						iables. It must therefore be en-	
						sured that the bottom-up ap-	
						proach is not disadvantaged, in	
						particular if the model exhibits	
						an adequate forecasting quality	
						even if there are dependencies.	
15	Credit	5.3 Risk quan-	120(a)	49	Amend-	Paragraph 120 in conjunction	
	risk	tification			ment	with paragraphs 124 and 138	
						requires a data history of 20	
						years for downturn analyses.	
						This is mitigated by paragraph	
						123(a), which permits capping	
						to 2008. However, we still re-	
						gard a loss history of 20 years	
						as very long – similar to our	
						comments on EBA consultations	
						on economic downturn LGD:	
						RTS (EBA/CP/2018/07), Guide-	
						line (EBA/CP/2018/08). Macro-	
						economically, this would cover	

Page 13 of 25 Comments Risk-type-specific chapters dated November 7, 2018

		e-specific chapters dat				2-3 business cycles (Juglar cy- cle).	
16	Credit risk	6.3 CCF struc- ture	134(b)	57	Clarifica- tion	In addition to the fixed horizon approach (analyse risk driver one year prior to default), para- graph 134(b) requires the co- hort approach (analyse risk driver within the previous year). However, the sequence of the analysis is not presented in suf- ficient detail. It is not clear how exactly the NCA should deal with a finding that the risk driver may be very volatile ("When choosing the appropri- ate reference date for a risk driver, institutions should take into account its volatility over time.") Should there be smoothing?	
17	Credit risk	7.1 Relevant regulatory ref- erences	142(a)	61	Amend- ment	It is unclear whether in para- graph 142, the ECB requires the calculation of a rating class-spe- cific MoC ("affecting the LRA es- timate at grade level"). Para- graph 43(b) of the EBA GL on PD and LGD (EBA/GL/2017/16) requires an MoC quantification "at least for each calibration segment". The EBA Guideline	Depending on the rating philosophy, the fluctuation of default rates over time reflects the impact of economic developments and not the statistical variance of the de- fault rate.

Page 14 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Comments Risk-type-specific chapters dated November 7, 2018	
	does not require the calculation
	of a rating class-specific MoC.
	Technically, there are only two
	alternatives for calculating a
	rating class-specific MoC, both
	of which are extremely prob-
	lematic and lead to manage-
	ment errors:
	a) On the one hand, the rating
	classes could be kept stable and
	only the PDs per rating class
	could be assigned a rating
	class-specific MOC. Since the
	MoC must also be calculated in-
	dividually for each rating sys-
	tem, the MoC in a rating class
	would differ per rating system.
	Since the MoC depends on the
	number of clients in the rating
	classes, different PDs would be
	obtained per rating system. For
	example, a company would re-
	ceive a PD including an MoC of
	0.20% in rating class "BBB" and
	a PD including an MoC of 0.30%
	in rating class "BBB-". On the
	other hand, a PD including an
	MoC of 0.15% would be ob-
	tained for a retail client in rating
	class "BBB" and a PD including
	an MoC of 0.20% in rating class

Page 15 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Comments Risk-type-specific chapters dated November 7, 2018	
	"BBB-". As is easily evident, the
	rating classes lose their signifi-
	cance for the PD level because
	of the MoC. Risk reporting on
	the basis of rating classes is
	then no longer plausible and
	leads to management errors.
	Downstream regulatory pro-
	cesses, such as EBA bench-
	marking, would also produce in-
	correct results.
	b) On the other hand, a rating
	class-specific MoC could initially
	be calculated for the prelimi-
	nary rating classes ("rating
	class before MoC"). The individ-
	ual PD would then have to be
	adjusted by the MoC and the
	clients would then have to be
	assigned again to a final rating
	class ("rating class after MoC")
	with the adjusted PD. Since the
	MoC depends on the number of
	clients in the rating classes, ad-
	jacent rating classes will receive
	different MoCs. This leads to a
	shift in the order in which rat-
	ings are distributed. Especially
	for portfolios with a low number
	of defaults, this can lead to a
	considerable shift in the rating

Page 16 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Comme	піз кізк-тур	e-specific chapters date		7,2010			
				., 20.0		distribution, which is not techni- cally plausible. Unfortunately, this approach also results in the observed default rates no	
						longer corresponding to the es- timated PDs of the rating clas- ses. Risk reporting based on the final rating classes can there- fore lead to management er- rors. Downstream regulatory processes, such as EBA bench- marking, would also produce in-	
						correct results. It should therefore also be in the ECB's interests if institu- tions calculate the MoC in line with the EBA requirements per rating system or per rating seg- ment, and not per rating class. The words "at grade level" in paragraph 142 should therefore be deleted.	
18	Mar- ket risk	2.2 Delimita- tion of the reg- ulatory trading book	9	70	Amend- ment	According to the last subpara- graph, institutions should be able to identify "internal trans- actions in the regulatory trading book", and show that these do not contribute to own funds re- quirements." To our knowledge, there is no such requirement in the CRR.	To our knowledge, there is no such requirement in CRR. Moreover, the FRTB text stipulates that "internal risk transfers between trading desks within the scope of ap- plication of the market risk charges will generally re- ceive regulatory capital recognition" (see FRTB 2016 paragraph 37). Please delete the second half of the sen- tence ("and show that these transactions do not contribute to the own funds requirements obtained using the internal model").

Comments Risk-type-specific chapters dated November 7, 2018

						We ask for deletion of the sec- ond half of the sentence.	
19	Mar- ket risk	2.4 Partial use models	21	73	Amend- ment	In this paragraph "general in- terest rate risk" is interpreted in conjunction with the statement in Article 362 of the CRR ("change in the level of interest rates") "is a reference to risk- free interest rates". We do not support this refer- ence.	We do not support this reference, because Article 367(2)(b) of the CRR stipulates that "the model shall also capture the risk of less than perfectly correlated movements between different yield curves" which is - in supervisory assessment practice - regularly understood as the need for modelling different sector/rating/etc. depending yield curves for each relevant currency.
20	Mar- ket risk	2.4 Partial use models	21	73	Clarifica- tion	We ask for clarification, which market factors are to be in- cluded as general risk factors and which are not, for instance are implied volatilities and cor- relations, dividends, tenor- spreads, collateral spreads, and others are to be included.	We would also like to point out that there should be a clear understanding of what in detail is included as spe- cific risk within the Standardised Approach. If for exam- ple all credit spread risks from bonds and credit deriva- tives are included, banks with partial-use IMA for gen- eral interest rate risk, who include general credit spread risk within general interest rate risk, would be double counting those risk. However, if they aren't included within specific risks of the SA, paragraph 21 will lead to a non-capitalisation of credit spread risks.
21	Mar- ket risk	3.3 Historical period used to perform back- testing, defini- tion of busi- ness days, and documentation	57	84	Amend- ment	In this paragraph it is stipulated that a given day should be con- sidered as a business day for VaR and backtesting, even if it is a holiday for the major part of the institution and only "a re- duced number of staff" is in op- eration.	Please note that usually these staffs are just for "fire- fighting", no regular trading or similar operation is tak- ing place. Hence the first two sentences of this para- graph should be deleted, the decision whether a (local) holiday is a "business day" for VaR and backtesting should be to the institution's discretion and justified to the satisfaction of the regulator.

Page 17 of 25

Page 18 of 25 Comments Risk-type-specific chapters dated November 7, 2018

						The first two sentences of this paragraph should be deleted, the decision whether a (local) holiday is a "business day" for VaR and backtesting should be to the institution's discretion and justified to the satisfaction of the regulator.	
22	Mar- ket risk	3.3 Historical period used to perform back- testing, defini- tion of busi- ness days, and documentation	60	85	Clarifica- tion	In the last sentence it is unclear what is meant by P&L "decom- position of economic, actual and hypothetical P&L into their ele- ments". A reference or explana- tion should be added.	We ask for clarification.
23	Mar- ket risk	3.5 Calculation of hypothetical P&L	75	89	Amend- ment	In footnote 86, priority is given when calculating the hypothet- ical P&L to the requirement to use market quotes or pricing methods and model parameteri- sations used for the economic P&L over the requirement to change only the risk factors within the risk categories of the IMA. To ensure the integrity and adequate backtesting of partial use VaR measures men- tioned at the beginning of para- graph 75, there should also be the possibility to calculate the hypothetical P&L reflecting the	For example, if partial use consists of the general inter- est rate risk, only the (risk-free) interest rate and the general credit spread risks are modelled in the VaR rel- evant for reporting in the case of bonds, while the hy- pothetical P&L must be determined on the basis of their market prices in accordance with paragraph 75. How- ever, in addition to risk-free interest rates, market prices also reflect bond-specific credit spreads, which in turn consist of general and special credit spreads. The hypothetical P&L thus also reflects in particular special interest rate risks, which in turn are expressly not part of the partial use VaR measure, with the result that no adequate statement on the integrity of the partial use VaR measure can ultimately be made using correspond- ingly designed backtesting.

Page 19 of 25 Comments Risk-type-specific chapters dated November 7, 2018

						partial use modelling. Footnote 88 should be amended corre- spondingly.	Footnote 88 should be amended as follows: "In this case <u>(that an exclusion of the P&L stemming</u> <u>from risk categories not included the scope of the inter-</u> <u>nal model is operationally challenging or its effect on</u> <u>the total P&L is immaterial</u>), if a market price that incor- porates all risks is used in the economic P&L, it should also be used in the hypothetical P&L."
24	Mar- ket risk	5.5 Proxies, beta approxi- mation and re- gressions	122	105	Amend- ment	In our view the stipulated re- quirement for interest rate curves to "duly justify why the data points interpolated owing to the reduced granularity should not be considered as proxies" is in contradiction to CRR. These paragraph should be amended.	Article 367(2)(e) of the CRR states that "Proxies shall be used only where available data is insufficient or is not reflective of the true volatility of a position or port- folio", while at the same time Article 367(2)(a) of the CRR requires that "the yield curve shall be divided into a minimum of six maturity segments". If this reduction of granularity would be seen as proxying by Article 367(2)(a) of the CRR would have to be rephrased since interest curve do have more than six pillars with "suffi- cient available data" in almost all cases, and would thus not be allowed for "proxying".
25	Mar- ket risk	5.5 Proxies, beta approxi- mation and re- gressions	125	106	Amend- ment	"The ECB considers that the re- quirement to have a docu- mented set of internal policies and controls also applies to the use of proxies, as they are part of the overall operation of inter- nal models." The GL should be amended ac- cordingly: " policy in place that ensures processes for de- riving and validating each proxy ".	Since usually the derivation and validation of each proxy is individually set up, it would be difficult if not impossible to "define a clear process for deriving and validating each proxy". Hence we propose to change the requirement into " policy in place that ensures pro- cesses for deriving and validating each proxy".

Page 20 of 25	
Comments Risk-type-specific chapters dated November 7, 2018	

26	Mar- ket risk	5.5 Proxies, beta approxi- mation and re-	128	106	Amend- ment	Please note that the require- ment in (b) and (c) to replace the market data in the hypo-	We would also ask for allowing a different alternative for paragraphs 128, 131 and 135. We would propose the usage of one P&L only in which all effects (proxies,
		gressions				thetical P&L by their proxies might not be possible due to technical restrictions / different system setups (cf. paragraphs 74 and 75). This paragraph should be amended correspond- ingly.	risk factors, and valuation methods) are combined – so called "Risk-P&L" or "VaR-P&L".
27	Mar- ket risk	5.6 Risk factors in the model	131	107/ 108	Amend- ment	Please note that the require- ment in (b) to omit risk factor changes in the P&L might not be possible due to technical re- strictions / different system set- ups (cf. paragraphs 74 and 75). This paragraph should be amended correspondingly.	We are of the opinion that the separation of model-spe- cific "risk factors" and "proxies" in a P&L is not particu- larly expedient because their adequacy is directly con- nected. In particular, the P&L required in paragraph 131, in which only the risk factors are changed and the remaining market data remain at the previous day's level, does not lead to any meaningful results. Take the example of the P&L resulting from a yield curve. Ac- cording to paragraph 131, the interest rates of the ma- turity support points selected as risk factors must be changed, while the interest rates of the immediately ad- jacent support points not declared as risk factors re- main unchanged. As a minimum, the following two problems are associated with these requirements: a) If there is a yield curve with a (very) high granularity of support points, the interest rates of neighbouring support points are, on the one hand, empirically highly correlated, and on the other, there is a very high proba- bility that a cash flow will be measured using an interest rate at a grid point not defined as a risk factor. This re- sults in a high discrepancy between the P&L required in

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							 paragraph 131 (in the example: 0 EUR) and the hypothetical P&L, which indicates a model problem that does not exist because the interest rate used to determine the hypothetical P&L (with a very high probability) moves very similarly to the directly adjacent risk factors. b) If the specifications are implemented one-to-one, this will result in yield curves that have spikes at the risk factor support points. As a result, the yield curves may not be sufficiently "smooth" to be included in or processed in individual (complex) valuation models. See also comment on paragraph 122.
28	Mar- ket risk	5.7 Pricing functions and methods in the model	135	109	Amend- ment	Please note that the require- ment in (b) to use VaR/sVaR pricing functions in combination with market data of the hypo- thetical P&L might not be possi- ble due to technical restrictions / different system setups (cf. paragraphs 74 and 75). This paragraph should be amended correspondingly.	
29	Mar- ket risk	7.2 The frame- work for risks not in the model engines	171	123	Amend- ment	In our view, the requirement in (b) to capitalise RNIME as add- ons to the own funds require- ments in pillar 1 should be de- leted.	Pillar 1 add-ons to the own funds requirements cannot be derived from CRR, since the internal model itself al- ready has to "capture accurately all material price risks", and there are no provision for add-ons. See also feedback on paragraph 189.

Page 21 of 25 Comments Risk-type-specific chapters dated November 7, 2018

Page 22 of 25	
Comments Risk-type-specific chapters dated November 7, 2018	

30	Mar-	7.4 Quantifica-	177/17	127/	Amend-	The ECB considers that the risk	This ECB request requires a risk model that is indeed
50	ket risk	tion of RNIME	8/ 179	128	ment	parameters for RNIME quantifi- cation should be aligned to the regulatory specifications. In paragraphs 177 and 178 it is stipulated that the RNIME should be quantified as "incre- mental risk numbers" using the same risk parameter setup as for VaR/sVaR calculations (i.e. 99%, 10 day holding period, etc.). We reject this request and ask for a more flexible approach for incremental quantification. Moreover we ask for a more equal alignment of the incre- mental and stand-alone quanti- fication.	able to calculate the "full" risk including the risks-not- in-VaR, too. If such a model were at hand for all RNIME components, there would be no reason to not include these in the VaR/sVaR model. The paragraphs should be amended to include the consideration that, more often than not, the given requirements are technically / oper- ationally not realisable. In our opinion paragraph 179 does not give enough flexibility to give institutions more freedom to calculate the incremental risk numbers ("The impact quantification of RNIME should be accu- rate to the extent possible using reasonable effort. The ECB considers that a more conservative impact quantifi- cation than described in paragraph 178 could be used where this is duly justified."). Moreover we ask for a more equal alignment of the in- cremental and stand-alone quantification.
31	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	182	129	Amend- ment	The ECB considers that in order to assess the adequacy of own funds, institutions should quan- tify and monitor the RNIME at least quarterly. In our opinion the frequency for quantification should be "at least annually", not "at least quarterly".	In our view there is no foundation in CRR for requiring to capitalise RNIME add-ons to the own funds require- ments in pillar 1, see feedback on paragraph 171. Thus the reference to Article 99 of the CRR for RNIME quanti- fication is not feasible and the frequency for quantifica- tion should be "at least annually", not "at least quar- terly".

Page 23 of 25
Comments Risk-type-specific chapters dated November 7, 2018

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32	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	183	129/ 130	Amend- ment	The ECB states, that "in accord- ance with Article 367(1)(a) of the CRR, any internal model must capture accurately all ma- terial price risks. Therefore, the ECB considers that in order to ensure that the models accu- rately capture all material price risks including RNIME and thereby result in a sufficient level of own funds,". We are of the opinion, that this cannot be derived from the CRR, and the paragraph should be amended correspondingly.	By definition, RNIME are not part of the VaR/sVaR etc. models. Thus, in our view, it cannot be derived from Ar- ticle 367(1)(a) of the CRR that RNIME should also be considered for a "sufficient level of own funds", see also feedback on paragraph 171. The introduction of the paragraph should be amended correspondingly.
33	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	183	129/ 130	Amend- ment	In footnote 145 in part (b) of this paragraph, it is stated that the comparison of RNIME num- bers should be performed using 60 days / 12 weeks averages of VaR/sVaR. The comparison of the RNIME numbers should be to VaR/sVaR as of the same due date.	RNIME numbers are based on the position of a certain due date, while the averages take different positions into account. Thus the comparison of the RNIME num- bers should be to VaR/sVaR as of the same due date.
34	Mar- ket risk	7.5 Manage- ment of RNIME and implemen-	183	129/ 130	Amend- ment	In part (b) of this paragraph, it is stipulated that the RNIME numbers should be capitalised applying the VaR/sVaR multipli- cation factors (mc and ms). Apart from that we do not see	There is even more no justification for applying the VaR/sVaR multipliers, since these are determined from backtesting of VaR where RNIME is not included. See also feedback on paragraph 189.

Page 24 of 25	
Comments Risk-type-specific chapters dated November 7, 2	2018

35	Mar- ket risk	tation in an in- stitution's risk engines 7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	183	129/ 130	Amend- ment	 any foundation for RNIME capital add-ons (see feedback on paragraph paragraph 171). For part (d) of this paragraph, see feedback on paragraphs 171 and 189. Part (d) should thus be removed. 	
36	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	186	132	Amend- ment	Here it is stipulated that changes to the RNIME frame- work should also be quantified with the aim of assessing whether these changes would lead to "material" changes as defined in the technical stand- ard on materiality of extensions and changes of the IMA. The first section of this para- graph should be removed.	The technical standard on materiality of extensions and changes of the IMA only defines thresholds for changes of VaR/sVaR numbers / risk numbers, which by defini- tion do not include the RNIME. So this reference cannot be applied, and should thus be removed.
37	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	186	132	Amend- ment	The ECB considers that because the RNIME framework is a com- ponent of the IMA, a change in it should accordingly be notified ex ante to the competent au- thorities, and is thus seen as a "core process". We reject this, the ex ante noti- fication should be restricted to	In Article 7b and Annex III, Part II, Section 2(13) of the technical standard on materiality of extensions and changes of the IMA, RNIME is not given as an example for a "core process" in risk management. Thus it cannot be derived that any change in the RNIME framework is a change in a "core process". For example, the intro- duction of a new risk factor examination in the RNIME framework is not a change in a "core process" and does not need to be notified ex ante. The ex ante notification should be restricted to significant changes in the RNIME

Page 25 of 25	
Comments Risk-type-specific chapters dated November 7, 2018	

						significant changes in the RNIME framework only, like the initial setup of its policy, all other changes can be reported as all other "model" changes in an annual frequency.	framework like the initial setup of its policy, all other changes can be reported as all other "model" changes in an annual frequency.
38	Mar- ket risk	7.5 Manage- ment of RNIME and implemen- tation in an in- stitution's risk engines	189	132	Comment	Here it is correctly stipulated that RNIME is not part of regu- latory backtesting. Conse- quently, since material RNIME effects can lead to backtesting outliers, RNIME should not be capitalised under pillar 1. Oth- erwise, if a backtesting outlier is due to RNIME effects, RNIME is capitalised twice: Once by the VaR/sVaR multiplication factor and once by separate RNIME capital add-ons. See also feed- back on paragraph 171.	If RNIME become/are material, this will be reflected in an unsatisfactory backtesting result, i.e. in particular in an increased number of outliers in the case of signifi- cant risk underreporting because of RNIME, which in turn will result in an increased backtesting add-on. Contrary to the RNIME specification in paragraph 183(a), backtesting adequately models and reflects model risks that both underreport and overreport risks and, in particular, their mutual dependencies, contrary to the RNIME specification in paragraph 183(b). In this respect, the objective of adequate own funds re- quirements for market risk is already fully met by the IMA in conjunction with the backtesting add-on. By con- trast, the RNIME framework leads to a high level of own funds requirements, among other things through double counting of the same RNIME via the backtesting add-on and the RNIME add-ons.