



**MONTE  
DEI PASCHI  
DI SIENA**  
BANCA DAL 1472

# **Risk Management Report**

**Hong Kong Branch September 2018**

**Direzione Chief Risk Officer**

### **Regulatory RWA and Internal RWA**

**Credit Risk Analysis of the Lending Portfolio**

**Interest Rate Risk Analysis of the Banking Book Portfolio**

**Operational Risk Management**

**Monitoring of credit risk by internally implemented portfolio model**



## Hong Kong Branch – Regulatory RWA and Internal RWA as at 30-09-2018

		(Eur mln)						
		HONG KONG						
P I L L A R 1	Regulatory / Internal RWA	set-17	dic-17	mar-18	giu-18	set-18	ΔQ	ΔQ%
	Credit and Counterparty Risk	179,29	153,01	123,47	105,95	53,15	-52,81	-49,8%
	Credit Risk	170,73	137,43	111,23	95,79	52,96	-42,83	-44,7%
	Standard	170,73	137,42	111,22	95,79	52,96	-42,83	-44,7%
	Issuer Risk Banking Book	8,56	15,58	12,24	10,16	0,18	-9,98	-98,2%
	Operational Risk	11,81	12,90	10,17	10,40	10,06	-0,34	-3,2%
	REGULATORY RWA	191,09	165,91	133,63	116,35	63,20	-53,14	-45,7%
P I L L A R 2	PILLAR 1 Component	191,09	165,91	133,63	116,35	63,20	-53,14	-45,7%
	Market Risk	1,00	0,88	0,86	1,00	1,02	0,02	2,1%
	Market Risk AFS	1,00	0,88	0,86	1,00	1,02	0,02	2,1%
	INTERNAL RWA	192,09	166,78	134,49	117,34	64,22	-53,12	-45,3%



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## Credit Loans Portfolio – Regulatory measures

Values in €/mln

		Credit Risk									
		dec-16	mar-17	jun-17	sep-17	dec-17	mar-18	jun-18	sep-18	ΔQtD	ΔYtD
<b>RWA</b>	<b>TOTAL</b>	<b>282,4</b>	<b>238,5</b>	<b>187,5</b>	<b>170,7</b>	<b>137,4</b>	<b>113,8</b>	<b>98,1</b>	<b>54,5</b>	<b>-44,5%</b>	<b>-60,4%</b>
	Standard	282,4	238,5	187,5	170,7	137,4	113,8	98,0	54,5	-44,5%	-60,4%
	- of which Bonis	267,6	224,5	175,9	161,3	121,2	99,5	85,5	41,8	-51,1%	-65,6%
	- of which Default	14,7	14,1	11,5	9,5	16,2	14,3	12,6	12,7	0,8%	-21,7%
	AIRB	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-100,0%	-100,0%
	- of which Bonis	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-100,0%	-100,0%
	- of which Default	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0%	0,0%

Values in €/mln

		dec-16	mar-17	jun-17	sep-17	dec-17	mar-18	jun-18	sep-18	ΔQtD	ΔYtD
<b>EAD</b>	<b>TOTAL</b>	<b>310,9</b>	<b>257,0</b>	<b>192,0</b>	<b>184,3</b>	<b>143,3</b>	<b>119,6</b>	<b>103,6</b>	<b>56,1</b>	<b>-45,9%</b>	<b>-60,9%</b>
	of which Intragroup	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0%	0,0%
	of which no Intragroup	310,9	257,0	192,0	184,3	143,3	119,6	103,6	56,1	-45,9%	-60,9%
	Standard	310,9	257,0	192,0	184,3	143,3	119,5	103,6	56,1	-45,9%	-60,9%
	- of which Bonis	297,7	244,1	181,0	174,9	127,1	105,3	91,0	43,4	-52,3%	-65,9%
	- of which Default	13,1	12,9	11,0	9,5	16,2	14,3	12,6	12,7	0,8%	-21,7%
	AIRB	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-100,0%	-100,0%
	- of which Bonis	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-100,0%	-100,0%
	- of which Default	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0%	0,0%

### Performing Credit Portfolio - Regulatory risk measures Analysis (focus AIRB)

Values in €/mln

		dec-16	mar-17	jun-17	sep-17	dec-17	mar-18	jun-18	sep-18	ΔQtD	ΔYtD
<b>RWA</b>	Corporate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,0%	0,0%
	Retail	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-100,0%	-100,0%
	<b>Total</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>-100,0%</b>	<b>-100,0%</b>
<b>EAD</b>	Corporate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,0%	0,0%
	Retail	0,00	0,00	0,00	0,00	0,01	0,01	0,01	0,00	-100,0%	-100,0%
	<b>Total</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,01</b>	<b>0,01</b>	<b>0,01</b>	<b>0,00</b>	<b>-100,0%</b>	<b>-100,0%</b>
<b>PD</b>	Corporate	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Retail	0,0%	0,0%	0,0%	0,0%	0,7%	0,7%	0,7%	0,0%	-100,0%	-100,0%
	<b>Total</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,7%</b>	<b>0,7%</b>	<b>0,7%</b>	<b>0,0%</b>	<b>-100,0%</b>	<b>-100,0%</b>
<b>LGD</b>	Corporate	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Retail	0,0%	0,0%	0,0%	0,0%	29,0%	29,0%	29,0%	0,0%	-100,0%	-100,0%
	<b>Total</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>29,0%</b>	<b>29,0%</b>	<b>29,0%</b>	<b>0,0%</b>	<b>-100,0%</b>	<b>-100,0%</b>

- RWA decrease from the previous quarter (-44,5%, -€44 mln) due to the standard Corporate segment..
- The decrease of EAD observed compared to the end of March (-16 €/mln) is mainly due to what above mentioned.



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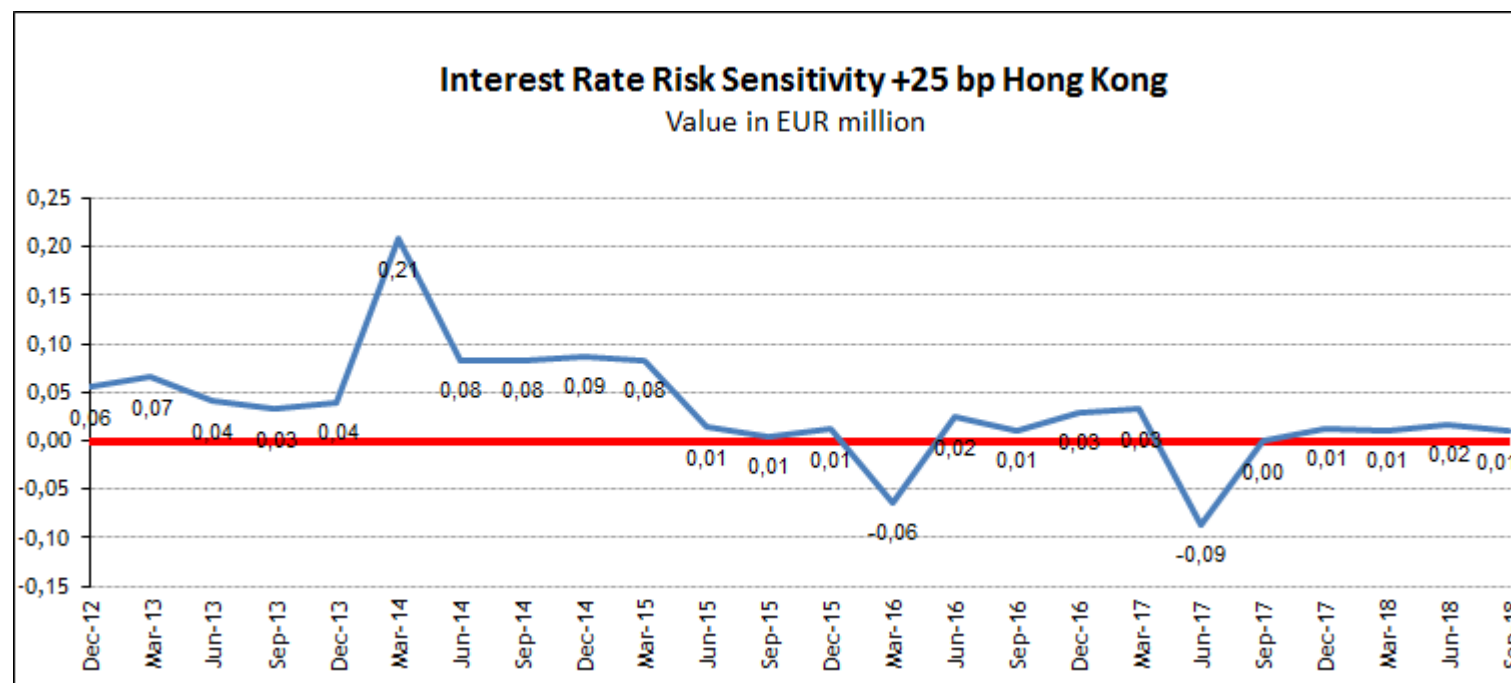
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# Interest Rate Sensitivity

Interest rate sensitivity September 2018						Value in €/ mln
	shock+25bp	shock-25bp	shock +100 bp	shock -100 bp	shock +200 bp	shock -200 bp
Hong Kong Branch	0,01	-0,01	0,04	-0,04	0,08	-0,07



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## Operational Risk Management – Loss Data Collection overview

The process of Loss Data Collection (LDC) consists of searching and registering loss data, triggered by operational risk events, and analytically examining them in order to fully understand loss causes and their implications as far as mitigation is concerned.

The Hong Kong Branch collects operational losses data from 2006; its operational losses are very rare and usually cause insignificant operational losses.

Concerning the period under investigation, no operational risk event occurred in **Q3 2018**.



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## Credit Loans Portfolio - Bonis portfolio

Credit risk information, included from the current slide to ahead, are based on managerial measurements.

September 30, 2018 - Hong Kong - €/mln

Portfolio	Drawn	EAD	EL	Ecap	EL / EAD (bp)	Ecap / EAD %	AVG PD %
<i>Corporate</i>	35,13	35,41	0,13	1,59	37	4,48%	0,94%
<i>Institutional</i>	7,51	7,51	0,04	0,11	51	1,43%	1,14%
<b>Total</b>	<b>42,63</b>	<b>42,92</b>	<b>0,17</b>	<b>1,69</b>	<b>39</b>	<b>3,95%</b>	<b>0,98%</b>

Loans\* exposures – at September 2018 – amount to 42,92 €/mln. Expected Loss (EL) and Economic Capital (ECap\*\*) are respectively 0,17 €/mln and 1,69 €/mln.

35,13 €/mln of exposure, almost 82% of whole portfolio, is represented by Corporate counterparts.

In terms of relative credit risk ratios, EL/EAD ratio is equal to 39 bps while ECap/EAD is 3,95%.

\* The Portfolio considered, in line with the analysis made at Bank and Group level, does not include the defaulted positions according to the international Regulatory framework for the validated AIRB approach.

\*\* ECap is calculated taking into account the diversification effect at the entire Group Portfolio level



## Credit Loans Portfolio – Top 20 – Bonis portfolio

Top 20

September 30, 2018 - Hong Kong - €/mln

Counterparty Name	Drawn	EAD	EL	Ecap	EL / EAD (bp)	Ecap / EAD %
YOUYUAN INTERNATIONAL HOLDINGS L	11,01	11,01	0,04	0,53	41	4,85%
APRIL INTERNATIONAL ENTERPRISE P	9,07	9,28	0,04	0,45	41	4,86%
CHINA WATER AFFAIRS	6,22	6,24	0,03	0,31	42	4,95%
PT TRANS RETAIL INDONESIA	4,32	4,32	0,02	0,21	41	4,86%
CHINA ORIENT ASSET MANAGEMENT IN	4,03	4,09	0,00	0,06	5	1,46%
BANQUE DE L' HABITAT	1,19	1,19	0,02	0,05	180	3,77%
VITTORIA INDUSTRIES LIMITED	0,27	0,27	0,00	0,01	41	4,93%
KOTAK MAHINDRA BANK LIMITED	1,47	1,47	0,00	0,01	21	0,85%
3T DESIGN LIMITED	0,20	0,20	0,00	0,01	41	4,93%
HONG KONG MONETARY AUTHORITY	1,47	1,47	0,00	0,01	1	0,48%
TURKIYE CUMHURİYETİ ZIRAAT BANKA	0,17	0,17	0,00	0,01	180	3,75%
QNB FINANSBANK ANONİM ŞİRKETİ	0,28	0,28	0,00	0,01	72	2,07%
CHINA BANKING CORPORATION	0,50	0,50	0,00	0,00	21	0,83%
JOINT STOCK COMPANY UNICREDIT BA	0,48	0,48	0,00	0,00	21	0,85%
BANCO CITIBANK SA	0,48	0,48	0,00	0,00	21	0,83%
YAPI VE KREDİ BANKASI A.S.	0,18	0,18	0,00	0,00	72	2,06%
ALBARAKA TÜRK KATILIM BANKASI AŞ	0,17	0,17	0,00	0,00	72	2,07%
TÜRKİYE İŞ BANKASI A.S.	0,13	0,13	0,00	0,00	72	2,07%
VAKIF KATILIM BANKASI A.S.	0,31	0,31	0,00	0,00	21	0,83%
TÜRKİYE FİNANS KATILIM BANKASI A	0,15	0,15	0,00	0,00	47	1,55%
<b>Total</b>	<b>42,11</b>	<b>42,39</b>	<b>0,17</b>	<b>1,69</b>	<b>40</b>	<b>3,99%</b>

\* Counterparties highlighted represent new entries in portfolio compared with the previous quarter



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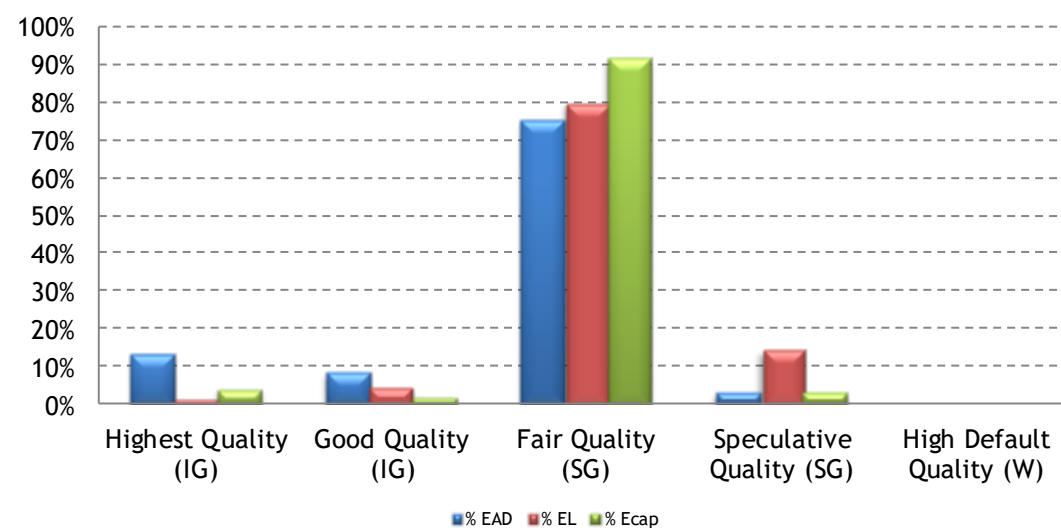
## Credit Loans Portfolio – quality distribution – Bonis portfolio

Master Scale	Basis point from to		S&P's Rating	Description
Highest Quality (IG)	-	16	AAA / A-	Investment
Good Quality (IG)	16	56	BBB+ / BBB-	
Fair Quality (SG)	56	298	BB+ / BB-	Speculative
Speculative Quality (SG)	298	1.774	B+ / B-	
Hight Default Quality (W)	1.774	10.000	CCC+ / D	Watch

On September 2018, the measurement of Exposures At Risk (EAD), in terms of internal-external ratings (according to the MPS Master Scale), results in the following counterparties distribution (as also represented in the graph below):

- Speculative Grade Class about 78% (see Fair and Speculative classes);
- Investment Grade about 22%.

Master scale distribution of borrowers



## Credit Loans Portfolio – Default portfolio

### Default portfolio

September 30, 2018 - Hong Kong - €/mln

Counterparty Name	Drawn	EAD	EL	LGD
JINDAL STEEL & POWER MAURITIUS L	11,24	11,24	6,63	59,01%
PT MAXPOWER INDONESIA	9,80	9,80	5,67	57,85%
ORIENT POWER HOLDINGS LIMITED	0,94	0,94	0,60	63,26%
PT PINDO DELI PAPER AND BOXBOARD	0,48	0,48	0,28	59,01%
SITEL PHONES HK LIMITED	0,05	0,05	0,03	65,56%
<b>Total</b>	<b>22,51</b>	<b>22,51</b>	<b>13,21</b>	<b>58,69%</b>

Defaulted loans exposures – at September 2018 – amount to 22,51 €/mln. Expected Loss (EL) is equal to 13,21 €/mln. LGD of Jindal Steel&Power Mauritius, which represents almost 50% of total default exposures, is 59,01%.



## Credit Portfolio Measurement System – Methodological Notes

1. Measuring and monitoring of credit risk are made in Banca MPS by means of the internally implemented portfolio model.
2. The model, under the responsibility of the Risk Management Dept, takes into account:
  - a) probability of default (PD) derived from the internal rating system for AIRB portfolio counterparties and from External Rating (if available) or benchmark approach for Standard portfolio counterparties. Until September 2015 the pd benchmark was estimated by average default rate approach above whole group portfolio. Since December 2015 the pd benchmark was estimated by average default rate approach above foreign branch portfolio, improving approximately 70-80%;
  - b) loss given default (LGD) rates obtained from specific 7-year time series of recovering and costs relating to “close” defaulted position;
  - c) coefficients of exposure at default (EAD);
  - d) data relating to different types of guarantees supporting specific transactions.
3. The model takes into account the diversification effect by means of a structural and dynamic correlation matrix which considers the concentration and diversification effects of the risk, together with the marginal redistribution of risk at single counterparty level .
4. The results of the portfolio model at Group level are regularly presented to the Risk Committee of the Corporate Center.
5. The main measures regularly presented are:
  - a) expected loss, representing the annual average estimated loss;
  - b) unexpected loss, representing the difference between the loss - measured on a yearly holding period at 99,93% confidence interval - and the expected loss;
  - c) economic capital, measure of the capital requirement originated from the positions held in the portfolio;
  - d) stress testing measures calculated on specific variables (i.e., increase in PD, etc.), representing extreme but possibile scenarios.
6. LGD parameters are estimated according to the “workout LGD” concept. LGD is calculated on the basis of historical recoveries and costs relating to defaulted positions over several years, discounted at the proper rates and adjusted through “cure-rate” methodology.
7. The parameters utilized to compute economic capital are the same according to the international Regulatory framework for the validated AIRB approach.



