

Regulatory real estate exposure secured by both residential properties and commercial properties - Illustrations of LTV calculations based on valuations or floor areas

For illustrative purposes, rows and columns in the reporting template that are not relevant to the example concerned have been omitted.

Case 1: A single loan secured by a pool of residential units and commercial units in different locations

- ◆ Exposure: A single loan of HKD 160 million to a corporate that is secured by a pool of 26 properties comprises both residential units and commercial units (all for rental) in 10 different locations on Hong Kong Island. The valuations of the units at the time of the origination of the loan are as follows:

Properties	Total valuation (in HKD million)
11 residential units	88.8
7 office units	135.0
8 shop units	156.0
Total:	379.8

- ◆ The source of income of the corporate is in Hong Kong dollar.

1. Calculation of Risk-weighted Amount

The loan is split into a residential real estate exposure and a commercial real estate exposure according to the proportion determined based on the respective total valuation of each type of property.

Properties	Total valuation (in HKD million)	Proportion
11 residential units	88.8	23.4%
15 commercial units	291.0	76.6%
Total:	379.8	100%

Regulatory residential real estate (RRE) exposures that are not non-IPRE exposures

$$\text{Loan amount} = 160 \times 23.4\% = 37.44$$

$$\text{LTV} = \frac{37.44}{88.8} = 42.2\%$$

Risk-weight : 30% (see Table 7 of BCR §65B(3))

$$RWA \text{ (regulatory RRE)} = 37.44 \times 30\% = 11.232$$

Regulatory commercial real estate (CRE) exposures that are not non-IPRE exposures

$$\text{Loan amount} = 160 \times 76.6\% = 122.56$$

$$LTV = \frac{122.56}{291} = 42\%$$

Risk-weight : 70% (see Table 9 of BCR §65C(3))

$$RWA \text{ (regulatory CRE)} = 122.56 \times 70\% = 85.792$$

2. Reporting Arrangement

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) × A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIA	Regulatory Residential Real Estate Exposures							
11a.	Not materially dependent on cash flows generated by mortgaged properties							
11a(i).	Risk-weight 20%						20	
...	...							
11a(vi).	Risk-weight 70%						70	
11b.	Materially dependent on cash flows generated by mortgaged properties							
11b(i).	Risk-weight 30%	37,440	37,440				30	11,232
...	...							
11b(vi).	Risk-weight 105%						105	
11c.	Unhedged credit exposures							
11d.	Exposures subject to risk-weights specified by other regulators							
	SUBTOTAL	37,440	37,440					11,232
Class XIB	Regulatory Commercial Real Estate (CRE) Exposures							
11e.	Not materially dependent on cash flows generated by mortgaged properties							
11e(i).	Risk-weight ≤ 20%							
...	...							
11e(iv).	Risk-weight > 100%							
11f.	Materially dependent on cash flows generated by mortgaged properties							
11f(i).	Risk-weight 70%	122,560	122,560				70	85,792
11f(ii).	Risk-weight 90%						90	
11f(iii).	Risk-weight 110%						110	
	SUBTOTAL	122,560	122,560					85,792

Case 2: A single loan secured by a whole block of composite (residential and commercial) building

- ◆ Exposure: A syndicated loan of HKD 1,690 million in which the reporting AI's participated amount is HKD 169 million (i.e. the AI's share in such loan is 10%).
- ◆ The syndicated loan is secured by a composite building comprises apartments, offices and a commercial car-parking basement (all for rental) with details as follows:

Properties	Gross floor area (sq. m.)
23 storeys of apartments	18,100
33 storeys of offices	66,200
3-storey commercial car-parking basement	6,100
Total:	90,400

- ◆ The valuation of the whole building at the time of origination of the loan is HKD 3,380 million where separate valuations for the residential portion and the commercial portion of the building are not available.

1. Calculation of Risk-weighted Amount

If there is no other more relevant information (e.g. actual annual cash flows generated by, or the estimated annual rental value of, each portion of the building) that can be used as the basis for splitting the AI's participated amount in the loan into a residential real estate exposure and a commercial real estate exposure, the AI may split its participated amount according to the proportion determined based on the respective floor areas of the residential portion and the commercial portion of the building.

Properties	Gross floor area (sq. m.)	Proportion
Residential portion	18,100	20%
Commercial portion	72,300	80%
Total:	90,400	100%

Regulatory residential real estate (RRE) exposures that are not non-IPRE exposures

Residential portion of the syndicated loan = $1690 \times 20\% = 338$

Valuation of the residential portion = $3380 \times 20\% = 676$

$$LTV = \frac{338}{676} = 50\%$$

Risk-weight : 30% (see Table 7 of BCR §65B(3))

RWA (regulatory RRE) of the AI's participated amount

$$= 338 \times 10\% \times 30\%$$

$$= \mathbf{10.14}$$

Regulatory commercial real estate (CRE) exposures that are not non-IPRE exposures

$$\text{Commercial portion of the syndicated loan} = 1690 \times 80\% = 1352$$

$$\text{Valuation of the commercial portion} = 3380 \times 80\% = 2704$$

$$\text{LTV} = \frac{1352}{2704} = 50\%$$

Risk-weight : 70% (see Table 9 of BCR §65C(3))

RWA (regulatory CRE) of the AI's participated amount

$$= 1352 \times 10\% \times 70\%$$

$$= \mathbf{94.64}$$

2. Reporting Arrangement

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIA	Regulatory Residential Real Estate Exposures							
11a.	Not materially dependent on cash flows generated by mortgaged properties							
11a(i).	Risk-weight 20%						20	
...	...							
11a(vi).	Risk-weight 70%						70	
11b.	Materially dependent on cash flows generated by mortgaged properties							
11b(i).	Risk-weight 30%	33,800	33,800				30	10,140
...	...							
11b(vi).	Risk-weight 105%						105	
11c.	Unhedged credit exposures							
11d.	Exposures subject to risk-weights specified by other regulators							
	SUBTOTAL	33,800	33,800					10,140
Class XIB	Regulatory Commercial Real Estate (CRE) Exposures							
11e.	Not materially dependent on cash flows generated by mortgaged properties							
11e(i).	Risk-weight ≤ 20%							
...	...							
11e(iv).	Risk-weight > 100%							
11f.	Materially dependent on cash flows generated by mortgaged properties							
11f(i).	Risk-weight 70%	135,200	135,200				70	94,640
11f(ii).	Risk-weight 90%						90	
11f(iii).	Risk-weight 110%						110	
	SUBTOTAL	135,200	135,200					94,640