2006 KDI Conference on Adopting the New Basel Accord
Impact and Policy Responses of Asian-Pacific Developing Countries

Implementation of Basel II in Hong Kong and Proposed Pillar 2 Framework

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6 July 2006

Outline

- Implementation principles and timeline
- Implementation proposals issued
- Concept of Pillar 2
- CAAP conducted by banks
- Supervisory Review Process (SRP) conducted by HKMA
- Illustration of Pillar 2 scoring system

HKMA's Implementation Principles

- Pragmatic implementation approach
  - Choice of approaches left to AIs based on scale, nature and complexity of business
  - On-going home/host cooperation to harmonise differences
- Practical legislative approach
  - Detailed Basel II requirements set out in Capital and Disclosure Rules, supplemented by supervisory guidance
- Transparent standard setting
  - Prior public consultation on detailed proposals to ensure transparency in Rules setting

Implementation Timeline : 2006

- Completion of policy-setting (Q1 06)
- Release of draft rules (Q4 05 – Q3 06)
- IRB approval (Q3 06 onwards)
- Establishment of Capital Adequacy Review Tribunal (Q3/Q4 06)
- Parallel reporting (Q3 & Q4 for Basic & Standardized Approach, 4 quarters for IRB)
- Release of final rules (Q4 06)

Consistent with Basel timetable – Hong Kong will be in the "first wave", along with London, Frankfurt and Tokyo

Implementation Timeline : 2007 onwards

- 2007 : All 77 locally-incorporated AIs will transition to Basel II, 50 or so on Basic Approach, 20 or so on Standardised Approach, 1 or 2 on foundation IRB
- 2008 (onwards) : 7 or 8 AIs may transition from Basic or Standardised Approach to foundation or advanced IRB
- Basel I disappears on 1 Jan 2007, so staying on Basel I is not an option
- AIs transitioning to IRB may be allowed to adopt Basic Approach (Basel I modified with some definitional changes) rather than Standardised Approach for a short interim period

Proposals issued (1)

- Six packages of consultation papers have been issued since August 2004, covering the following policy areas:
  - Application of new capital requirements
  - Scope of application
  - Basic approach to credit risk (weighting framework)
  - Standardised approach to credit risk (weighting framework & CRM)
  - Recognition of ECAIs
  - IRB approach to credit risk (minimum requirements, transitional criteria, weighting framework & validating risk rating system)
  - Securitisation
  - Market risk
  - Operational risk
  - Supervisory review process
  - Disclosure requirements
  - Determination of capital base
  - New CAR return and completion instructions

Proposals issued (2)

- Four batches of draft capital rules released:
  - Application of the rules
  - Determination of capital base
  - Standardised approach to calculation of credit risk
  - IRB approach to calculation of credit risk
  - Basic approach to calculation of credit risk
  - Securitisation
  - Calculation of market risk
  - Calculation of operational risk

What, conceptually, is Pillar 2? (1)

- Pillar 1 covers only certain types of risk (principally credit risk, market risk and operational risk)
- Pillar 2 is intended to cover
  - residual credit, market and operational risks not covered under Pillar 1;
  - other types of risk not covered by Pillar 1 (e.g. interest rate risk);
  - the quality of systems and controls / risk management; and
  - external/environmental factors (principally business/economic cycle)
- The objective is to require banks to hold adequate capital to cover these risks; and to provide an incentive for improved risk management

What, conceptually, is Pillar 2? (2)

- The Pillar 2 concept requires :
  - Banks to have an internal process for assessing how much capital they require to cover the risks in their businesses (i.e. how much buffer above the 8% minimum they need to hold);
  - Supervisors to have the capability to review banks' internal capital assessments and determine whether the resultant capital position is adequate; and
  - Supervisors to have the power to set banks individual capital ratios above the 8% minimum
- In practice, Pillar 2 comprises 2 distinct processes :
  - Capital adequacy assessment process (CAAP) by banks
  - Supervisory review process (SRP) by supervisors

CAAP conducted by banks

- Each bank should establish a CAAP to fit its own circumstances and needs, having regard to the risk profile and level of sophistication of its operations
- The CAAP should be risk-based, forward-looking and form an integral part of the bank's management / decision-making process
- The HKMA would not expect all banks necessarily to have a well-developed CAAP by 1 Jan 2007, but they should initiate efforts to put in place the basic elements of the CAAP and make steady progress towards enhancing the process over time
- Foreign bank subsidiaries may adopt group CAAP which is subject to comparable supervisory standards

SRP conducted by HKMA

Main objectives of the SRP :

- Ensure banks have adequate capital to support all material risks in their businesses
- Encourage banks to develop and use better risk management techniques for monitoring and controlling their risks
- Encourage banks to engage in active capital management, including strategic and capital planning
- Foster an active dialogue between banks and supervisors regarding fulfilment of capital adequacy and risk management standards

Current Practice in Hong Kong

- Legislation gives the MA the power to set minimum CARs on a bank-by-bank basis, in the range of 8 - 16% (i.e. with a maximum "add-on" of 8%)
- Current practice is to require a minimum "add-on" of 2%, principally to cover operational risk and business cycle risk
- The process by which individual CARs are set is not very transparent, nor is it entirely rigorous; in practice, the ratio required is largely a function of the bank's CAMEL rating and its size

Proposed SRP (1)

- The existing practice gives us something to build on, but we know our assessments need to be more rigorous and need to cover a wider range of risks
- Accordingly, we have developed and tested a new “scoring system” based around our existing risk-based supervisory system
- Banks are assessed on 8 risk areas – credit, market, interest rate, liquidity, operational, legal, reputation and strategic
- Their score depends on both the risk level and the quality of their risk management

Proposed SRP (2)

- The results of the SRP will be discussed with the bank, and will determine both the minimum CAR for the bank and our supervisory priorities
- The results can also be aggregated across the sector to provide a picture of sectoral risks
- Banks’ own CAAPs will be reviewed as part of the SRP, but setting of their minimum CAR will, for the time being, remain driven by supervisory assessment
- In effect, this approach attempts to apply the same degree of rigour to the Pillar 2 risks as has been applied to the Pillar 1 risks

SRP - Key Assessment Factors

Risk-based supervision	**Pillar 1 consideration**	**Pillar 2 consideration**					
		Common factors				**AI-specific factors**	
		Inherent risk	System & control	CAAP	Governance	Risk mitigating	Risk increasing
Credit risk	- Counterparty default risk - Transaction risk (CRM)	- Credit concentration risk	- Risk management system - Internal control system and environment - Infrastructure to meet business needs - Other support systems (e.g. MIS and anti-money laundering system)	- Adequacy and effectiveness of CAAP and stress-testing capability - Capital quality and strength - Capability to withstand risk (including stress tests on business cycle risk, access to capital market and strength of shareholders / parental support, etc.)	- Corporate governance (compliance and quality)	Examples - IRB / AMA capability for AIs using basic / standardised approach - Insurance cover recognisable under AMA - Diversification benefits - Other factors providing relief capital	Examples - Securitisation and credit derivatives - Residual modelling risk from Pillar 1 - Outliers in specific risks - Other factors inadequately / not dealt with under Pillar 1 or the scoring system
Market risk	- Trading risk - FX risk						
Operational risk (including legal risk)	- Risk of losses from internal operations and external events	- Residual operational and legal risks					
Interest rate risk	- Interest rate risk in trading book	- Interest rate risk in banking book					
Liquidity risk		- Liquidity risk					
Strategic risk		- Strategic risk					
Reputation risk		- Reputation risk					
	Pillar 1 CAR	Scoring result through scorecard and 13 supporting templates				Assess on a case-by-case basis (may use peer group comparison)	
	MINIMUM CAR						

Allocation Matrix under Scoring System

Risk Types	Allocation of scores under Pillar 2									Min CAR required under Basel II			Min CAR converted into economic capital allocation
	Risk level	Systems and controls					CAP	Governance	Total	Pillar 2	Pillar 1	Total	
		Risk mgt system	Internal controls	Infra-structure	Other support systems	Sub-total							
Credit	4	5.6	2.8	1.2	0.4	10	10	3	**27**	2.2%	7.0%	9.2%	58%
Market	-	2.8	1.4	0.5	0.3	5	4	1	**10**	0.8%	0.3%	1.1%	7%
Interest rate	6	2.8	1.4	0.5	0.3	5	3	1	**15**	1.2%	-	1.2%	7.5%
Liquidity	6	2.8	1.4	0.5	0.3	5	3	1	**15**	1.2%	-	1.2%	7.5%
Operational	3.5	5.4	2.7	0.9	0.3	9.3	2.5	0.7	**16**	1.3%	0.7%	2.0%	12.5%
Legal	0.5	0.2	0.1	0.2	0.2	0.7	0.5	0.3	**2**	0.1%	-	0.1%	0.5%
Reputation	3	0.2	0.1	0.1	0.1	0.5	2.5	1.5	**7.5**	0.6%	-	0.6%	3.5%
Strategic	3	0.2	0.1	0.1	0.1	0.5	2.5	1.5	**7.5**	0.6%	-	0.6%	3.5%
Overall	**26**	**20**	**10**	**4**	**2**	**36**	**28**	**10**	**100**	**8%**	**8%**	**16%**	100%

Mapping of Scores to Minimum CAR

Overall risk profile	Scores obtained	Score range	Capital increment	Recommended minimum CAR
Low	0 - 8	8	Nil	8.0%
Low	> 8 - 16	8	0.5%	8.5%
Low	> 16 - 24	8	0.5%	9.0%
Moderate	> 24 - 30	6	0.5%	9.5%
Moderate	> 30 - 36	6	0.5%	10.0%
Moderate	> 36 - 42	6	0.5%	10.5%
Moderate	> 42 - 48	6	0.5%	11.0%
Moderate	> 48 - 54	6	0.5%	11.5%
Moderate	> 54 - 60	6	0.5%	12.0%
High	> 60 - 65	5	0.5%	12.5%
High	> 65 - 70	5	0.5%	13.0%
High	> 70 - 75	5	0.5%	13.5%
High	> 75 - 80	5	0.5%	14.0%
High	> 80 - 85	5	0.5%	14.5%
High	> 85 - 90	5	0.5%	15.0%
High	> 90 - 95	5	0.5%	15.5%
High	> 95 - 100	5	0.5%	16.0%

Scorecard

Name of AI : Worse Sample Bank

Period under review : 1/1/2007 - 31/12/2007

	Ref.	Scoring						Score obtained				Comments
		Max. score		Max. score		Max. score		Current period		Last period		
A. Specific risks not directly/fully captured under Pillar 1												
Credit concentration risk	A1	L	0.5	M	2	H	4	L	0.14			
Interest rate risk in the banking book	A2	L	0.75	M	3	H	6	M	2.36			
Liquidity risk	A3	L	0.75	M	3	H	6	M	1.24			
Residual operational risk	A4	L	0.5	M	2	H	4	M	1.40			
Reputation risk	A5	L	0.375	M	1.5	H	3	H	2.80			Market perception : Weak financial position
Strategic risk	A6	L	0.375	M	1.5	H	3	H	3.00			No strategic planning; unclear strategic goals
B. Systems and controls												
Risk management system	B1	S	2.5	A	10	W	20	W	15.69			Detailed comments shown in Template B1
Internal control system and environment	B2	S	1.25	A	5	W	10	W	7.84			Weak control culture; poor internal audit
Infrastructure to meet business needs	B3	S	0.5	A	2	W	4	W	3.15			Incompetent staff; high staff turnover
Other support systems	B4	S	0.25	A	1	W	2	W	1.31			Inadequate anti-money laundering measures
C. Capital adequacy and capability to withstand risks												
Capital adequacy assessment process	C1	S	1.25	A	5	W	10	W	10.00			Lack of CAAP (AI using Basic Approach)
Capital adequacy and capability to withstand risk	C2	E	2.25	S	9	U	18	S	7.61			
D. Corporate governance	D1	E	1.25	S	5	U	10	U	8.33			Inadequate risk management knowledge; poor response to regulatory concerns

	Current period	Last period	Comments
TOTAL SCORE OBTAINED	64.87		
SCORE CONVERTED INTO MINIMUM CAR	12.5%		
RISK MITIGATING FACTORS (- %)	-		
RISK INCREASING FACTORS (+ %)			
- Adjustment to risk weight for past due exposure between Standardised Approach and Basic Approach	+ 1.0%		AI identifed as an outlier in peer group comparison of past due exposure
- Significant concern over management competence and quality	+ 2.5%		Other supervisory measures to be taken, including change of management and need for comprehensive remedial plan
MINIMUM CAR RECOMMENDED	16%		
EXISTING MINIMUM CAR	14%		
OBSERVATION PERIOD REQUIRED BEFORE REVISING EXISTING MINIMUM CAR *	0		
MINIMUM CAR APPROVED	16%		

A = Acceptable, E = Excellent, H = High, L = Low, M = Moderate, S = Strong / Satisfactory, U = Unsatisfactory, W = Weak

* Observation period limited from 0 to 12 months; revision of existing minimum CAR subject to Review Committee's approval.

Template A1 - Credit Concentration Risk

Risk level : **Low**

Score obtained : **0.14**

	Position as at 31/12/2007	HK$'m	% of C.B.	Score obtained	Maximum score
1. Sectoral concentration	Aggregate of risk weighted exposures with sectoral concentration	297	108%	0.08	1.50
2. Geographical concentration					
(a) Large cross-border claims on countries with sovereign rating equal to or above A- (S&P) / A3 (Moody's) / A- (Fitch) — No. of countriess: 1	Aggregate	142	52%	0.00	0.10
	Largest	142	52%	0.01	0.10
(b) Large cross-border claims on countries with sovereign rating below A- (S&P) / A3 (Moody's) / A- (Fitch) / without ratings — No. of countriess: Nil	Aggregate	0	0%	0.00	0.25
	Largest	0	0%	0.00	0.25
3. Concentration of exposure to non-bank Chinese entities	Aggregate	0	0%	0.00	0.30
4. Concentration of exposure to counterparties					
(a) Non-exempt large exposures — No. of large exposures : Nil	Aggregate	0	0%	0.00	0.40
	Largest	0	0%	0.00	0.40
(b) Large bank exposures — No. of large exposures : 3	Aggregate	254	92%	0.00	0.10
	Largest	89	32%	0.01	0.10
(c) Aggregate of exposures to non-bank connected parties	Aggregate	32	12%	0.04	0.30
5. Other concentrations (please itemised below)					0.20
	Score obtained			**0.14**	**4.00**

Sectoral concentration detail:

	O/S Bal. HK$'m	As % of T.L.	As % of T.A.	As % of C.B.	Concen -tration	Risk weight	RW Exp. HK$'m
(a) Residential mortgages	45	7%	3%	16%	No	35%	-
(b) Credit card advances	-	-	-	-	-	75%	-
(c) Loans to professional and private individuals	84	14%	5%	31%	Yes	75%	63
(d) Property dev. & inv.	122	20%	8%	44%	Yes	100%	122
(e) Taxi and PLB loans	2	0%	0%	1%	No	100%	-
(f) Share financing	1	0%	0%	0%	No	100%	-
(g) Trade financing	112	18%	7%	41%	Yes	100%	112
(h) Others (if concentrated) :							
Nil						100%	
						100%	

Exposure / claims considered concentrated or large if any of the benchmarks is exceeded	Benchmakrs (% of) T.L.	T.A.	C.B.
Residential mortgages	20%	10%	100%
Credit card advances	3%	1.5%	15%
Loan to professional and private individuals	3%	1.5%	15%
Property development and investment	15%	7.5%	75%
Taxi and PLB loans	6%	3%	30%
Share financing	6%	3%	30%
Trade financing	6%	3%	30%
Other economic sectors (individual)	6%	3%	30%
- Return items : A1(c), 2, 3, 4, 5(c), 6, 7, 8, 9; B3; C; D; E3; F; G1, 2, 5: H1, 2(e), 6; and K			
Claims on individual countries	N/A	N/A	50%
Claims on individual countries	N/A	N/A	30%
Total exposure	N/A	N/A	30%
Non-exempt exposure under S.81 of BO	N/A	N/A	10%
Bank exposure	N/A	N/A	30%
Exposure to non-bank connected parties	N/A	N/A	5%

Conversion Table for Credit Concentration Risk

Overall risk level	Total score obtained	Sectoral concentration		Geographical concentrations				Aggregate exposures to non-bank Chinese entities		Concentration of exposures to counterparties						Other concentrations	
		Aggregate risk-weighted exposures to economic sectors with concentration		Large cross-border claims on countries with sovereign ratings equal to or above A- (S&P / Fitch) / A3 (Moody's)		Large cross-border claims on countries with sovereign ratings below A- (S&P / Fitch) / A3 (Moody's) / unrated				Non-exempt large exposures		Large bank exposures		Aggregate exposures to non-bank connected parties			
		Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	% of capital base	Scores obtained	Level of risk
Low	0 - 0.5	0.00	0 - 100%	Aggregate	Aggregate	Aggregate	Aggregate	0.00	0 - 30%	Aggregate	Aggregate	Aggregate	Aggregate	0.00	0 - 5%	0.00	Low
Moderate	> 0.5 - 2	0.08	> 100 - 120%	0.00	0 - 100%	0.000	0 - 30%	0.02	> 30 - 40%	0.000	0 - 100%	0.00	0 - 100%	0.02	> 5 - 10%	0.10	Moderate
		0.16	> 120 - 140%					0.04	> 40 - 50%					0.04	> 10 - 15%		
High	> 2 - 4	0.24	> 140 - 160%	0.01	> 100 - 160%	0.015	> 30 - 40%	0.06	> 50 - 60%	0.025	> 100 - 110%	0.01	> 100 - 120%	0.06	> 15 - 20%	0.20	High
		0.32	> 160 - 180%	0.02	> 160 - 220%	0.003	> 40 - 50%	0.08	> 60 - 70%	0.050	> 110 - 120%	0.02	> 120 - 140%	0.08	> 20 - 25%		
		0.40	> 180 - 200%	0.03	> 220 - 280%	0.045	> 50 - 60%	0.10	> 70 - 80%	0.075	> 120 - 130%	0.03	> 140 - 160%	0.10	> 25 - 30%		
						0.060	> 60 - 70%			0.100	> 130 - 140%						
		0.56	> 200 - 220%	0.05	> 280 - 340%	0.075	> 70 - 80%	0.14	> 80 - 90%	0.125	> 140 - 150%	0.05	> 160 - 180%	0.14	> 30 - 35%		
		0.72	> 220 - 240%	0.07	> 340 - 400%			0.18	> 90 - 100%			0.07	> 180 - 200%	0.18	> 35 - 40%		
		0.88	> 240 - 260%			0.105	> 80 - 90%	0.22	> 100 - 110%	0.175	> 150 - 160%			0.22	> 40 - 45%		
		1.04	> 260 - 280%	0.10	> 400%	0.135	> 90 - 100%			0.225	> 160 - 170%	0.10	> 200%				
		1.20	> 280 - 300%			0.165	> 100 - 110%	0.30	> 110%	0.275	> 170 - 180%			0.30	> 45%		
										0.325	> 180 - 190%						
		1.50	> 300%			0.250	> 110%										
										0.400	> 190%						
				Largest	Largest	Largest	Largest			Largest	Largest	Largest	Largest				
				0.01	> 50 - 100%	0.015	> 30 - 35%			0.025	> 10.0 - 11.5%	0.01	> 30 - 40%				
				0.02	> 100 - 150%	0.003	> 35 - 40%			0.050	> 11.5 - 13.0%	0.02	> 40 - 50%				
				0.03	> 150 - 200%	0.045	> 40 - 45%			0.075	> 13.0 - 14.5%	0.03	> 50 - 60%				
										0.100	> 14.5 - 16.0%						
				0.05	> 200 - 250%	0.060	> 45 - 50%			0.125	> 16.0 - 17.5%	0.05	> 60 - 70%				
				0.07	> 250 - 300%	0.075	> 50 - 55%					0.07	> 70 - 80%				
						0.135	> 55 - 60%			0.175	> 17.5 - 19.0%						
				0.10	> 300%	0.165	> 60 - 65%			0.225	> 19.0 - 20.5%	0.10	> 80%				
										0.275	> 20.5 - 22.0%						
						0.250	> 65%			0.325	> 22.0 - 23.5%						
										0.400	> 23.5 - 25.0%						

Template B1 - Risk Management System

Overall rating : **Weak**

Score obtained : **15.69**

Assessment factors [1]	Rating	Individual rating								Comments [2]
		Credit	Market	Interest rate	Liquidity	Operational	Legal	Reputation	Strategic	
1. Adequacy of risk management policies, procedures and limits	**A**	A	A	W	A	W	A	W	W	Overall risk management policies and procedures not comprehensive, particularly in managing interest rate risk
2. Effectiveness of the overall risk management framework	**W**	W	A	W	A	W	A	W	W	Risk management framework unclear and not documented
3. Adequacy and effectiveness of individual components in the risk management process										Major weaknesses include : (a) weak risk management and control culture; (b) generally staff engaged in risk management processes not fully understand their duties and responsibilities; (c) reporting lines and authority in managing credit, interest rate a
(a) Risk identification	**W**	W	A	W	A	W	A	W	W	
(b) Risk measurement / assessment	**W**	W	A	W	A	W	A	W	W	
(c) Risk monitoring and controlling	**W**	A	A	W	A	W	A	W	W	
(d) Risk mitigation techniques	**A**	A	A	W	A	A	A	W	W	
(e) Contingency planning	**A**	N/A	N/A	N/A	A	A	N/A	N/A	N/A	
(f) Risk reporting	**W**	A	A	W	A	W	A	W	W	
4. Result / progress of implementation of the recommendations from regulators, internal and external auditors on risk management	**A**	A	A	N/A	A	A	A	A	A	Slow response to supervisory concerns; and supervision staff need to put in great effort to educate and force AI's staff and management in implementing their recommendations
Overall rating	**W**	W	A	W	A	W	A	W	W	
Score obtained	**15.69**	5.2	1.20	2.40	1.20	5.200	0.090	0.200	0.200	

Rating	**Maximum score**								
S : Strong	2.5	0.7	0.35	0.35	0.35	0.675	0.025	0.025	0.025
A : Acceptable	10	2.8	1.4	1.4	1.4	2.7	0.1	0.1	0.1
W : Weak	20	5.6	2.8	2.8	2.8	5.4	0.2	0.2	0.2

Combination of Scoring Results

LIQUIDITY RISK					
Inherent Risk Level		**Risk Management System**		**Overall Risk Profile**	
	Max. Score		Max. Score		Max. Score
Low	0.75	Strong	0.35	Low	1.1
Moderate	3	Acceptable	1.4	Moderate	4.4
High	6	Weak	2.8	High	8.8

EXAMPLES					
Inherent Risk Level		**Risk Management System**		**Overall Risk Profile**	
Moderate	1	Strong	0.3	Moderate	1.3
Moderate	3	Acceptable	1.4	Moderate	4.4
Moderate	2	Weak	1.5	Moderate	3.5
High	4	Strong	0.3	Moderate	4.3
High	4	Acceptable	1.4	High	5.4
Low	0.5	Weak	1.5	Moderate	2.0
Low	0.5	Acceptable	0.6	Low	1.1

Thank you