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PART I - OVERVIEW

Applicability

1. This circular is applicable to all registered takaful operators.

Effective Date

2. The effective date of this circular is on 24 October 2001.

PART II – POLICY REQUIREMENTS

3. The current economics environment presents tremendous challenges to takaful operators to maintain stability in the financial performance of the takaful funds under their management. For your information, conventional insurers have already taken the pre-emptive measures by performing the stress test and in this regard, takaful operators are required to take similar measures on financial performance projection of takaful funds for management and business planning purposes as well as to report these projections to the Board of Directors, with a copy to Jabatan Penyeliaan Insurans dan Takaful, Bank Negara Malaysia.

4. In line with this practice, the guidelines on stress test to be conducted by takaful operators have been formulated as follows:

- (i) Takaful operators would be required to perform stress tests on financial performance of the takaful funds to detect possible sources of vulnerability. The objective is to ensure that takaful operators identify problems early so that pre-emptive measures can be instituted at an early stage.

Stress Test Parameters

- (ii) Takaful operators would be required to perform stress tests based on the parameters set out in the attached Appendix I. The assumptions stipulated are generic in nature and have been laid down based on the approach initiated by PIAM and LIAM. Nonetheless, takaful operators are encouraged to include other relevant parameters pertinent to their

operations to ensure accuracy of the stress tests results.

- (iii) The formats for the results of the stress tests are as per Appendix II to Appendix VII.
- (iv) For projections on a quarterly basis, takaful operators are required to project the financial results of the funds for the next six (6) months, updating the parameters and assumptions if necessary. Takaful operators must also validate takaful funds' projections and assumptions used in the stress test against the actual position of the funds. If the funds' initial projections appear under or over-stated, takaful operators must make further adjustments to the funds' initial projections. For example, if a KLCI projection of 400 is made up to 30 June 2002, but the index has already reached 400 as at 1 December 2001, takaful operators must adjust the fund's initial projection of 400 during the December reporting to ensure that the June 2002 projection is reasonable and consistent.
- (v) The results of the quarterly projections on financial performance of takaful funds should be reported to the Board of Directors as part of the normal reporting process of the operator. The results of the stress tests should be reported to the Board of Directors no longer than two (2) months from the end of the reporting quarter-year, with a copy to Jabatan Penyeliaan Insurans dan Takaful, Bank Negara Malaysia.

5. Please be guided accordingly.

PART III – APPENDICES

Appendix I

General Takaful Fund Parameters and Assumptions

Numeric values projected or assigned for these parameters are based on assumptions in three (3) different scenarios to test the robustness of the Financial Institutions. These assumptions should not be construed as a forecast. Clarification on some significant parameters is as follows:

Parameters	Remarks
<p>Projected Drop in Asset Values</p> <ul style="list-style-type: none"> • Decline in KLCI • Decline in Property Market • Increased Provision for Agents' Balances and Amounts due from Retakafuls 	<p>The projection for the decline in asset values should take into account further deterioration of Kuala Lumpur Composite Index (KLCI), property market values and increased provision for bad and doubtful debts. For ease of implementation, the base used for the KLCI should be the index on the last trading day of the reporting half-year. Potential losses from diminution in investments such as PDS, shares, etc after considering the credit risk and price risk should be included. Corporate securities should be valued at lower of cost or market value by category of investment, while the difference in permitted investment securities should be amortised over the remaining period to maturity. The projection should be estimated after reviewing, inter alia, the:</p> <ul style="list-style-type: none"> • Exposure to the corporate debt securities. (shares, private debt securities and unsecured investments) • Exposure to property and vulnerability to drop in property values especially if there has been a recent valuation of property. For ease of implementation, property purchased or revalued after 1993 should be subjected to this test. • Increased provision for doubtful debts especially if there has been a trend of increase in such provisions. • Risk of default arising from agents and retakafuls and other intermediaries.

The generic assumptions to be used for the 6-month projection are as follows:

General Assumptions	Scenario 1	Scenario 2	Scenario 3
Decline in value of shares (quoted)	10%	15%	20%
Decline in value of property	20%	30%	50%
Provision for other secured loans	5%	10%	15%
Decline in gross contribution	5%	10%	15%
Increase in claims ratio	5%	10%	15%
Provision for amount outstanding from agents and intermediaries	15%	20%	25%

Family Takaful Fund Parameters and Assumptions

Numerics values projected or assigned for these parameters are based on assumptions in three different scenarios to test the robustness of the financial health of takaful operators. These assumptions should not be construed as a forecast. Clarification on some significant parameters is as follows:

Parameters	Remarks
<p>Projected Drop in Asset Values</p> <ul style="list-style-type: none"> • Decline in KLCI • Decline in Property Market <p>Credit risk provision for bad and doubtful debts</p>	<p>The projection for the decline in asset values should take into account further deterioration of Kuala Lumpur Composite Index (KLCI), property market values and increased provision for bad and doubtful debts. For ease of implementation, the base used for the KLCI should be the index on the last trading day of the reporting half year. Potential losses from diminution in investments such as PDS, shares, etc after considering the credit risk and price risk should be included. Corporate securities should be valued at lower of cost or market value by category of investment, while the difference in permitted investment securities should be amortised over the remaining period to maturity. The projection should be estimated after reviewing, inter alia, the:</p> <ul style="list-style-type: none"> • Exposure to the corporate debt securities. (shares, private debt securities and unsecured investments) • Exposure to property and vulnerability to drop in property values especially if there has been a recent valuation of property. For ease of implementation, property purchased or revalued after 1996 should be subjected to this test.

The generic assumptions to be used for 6-month projection are as follows:

General assumptions	Scenario 1	Scenario 2	Scenario 3
Liability Testing	Statutory valuation liabilities to be estimated by projecting earlier results every half year (i.e. on 30 June and 31 December) based on actual in force data at the end of current quarter and to include projected new business every half year		
Decline in value of shares (quoted) Based on KLCI as at last trading day of the half year	10%	15%	20%
Decline in value of property (for property revalued or purchased after 1996)	20%	30%	50%
Provision for secured financing	5%	10%	15%
Provision for investments in subsidiaries and associated companies	Takaful operators to assess risk of increasing provisions and provide accordingly		
Decline in new business over the corresponding period of last year	5%	10%	15%
Increase in lapsation/surrender over the corresponding period of last year	5%	10%	15%

Appendix II

Stress Test for General Takaful Fund

Simplified General Takaful Fund Revenue Account for the 6-Month Period Ended dd/mm/yyyy Projections for Six Months Period (Scenario 1/2/3)

Simplified Revenue Account	As reported during current half year ending dd/mm/yyyy	Projections		
		6-Months Projections		
		Scenario 1	Scenario 2	Scenario 3
		In RM'000		
A : Gross contribution*				
B : Less Retakaful ceded*				
C : Net contribution (A – B)*				
D : Add/Less Provision for unearned contribution reserves*				
E : Earned contribution (C – D)*				
F : Less Net claims incurred*				
G : Less Net commission*				
H : Less Management expenses*				
I : Underwriting Profit/(Loss) (E – F – G – H)				
J : Plus Net investment income*				
K : Plus Other income/(outgo)*				
L : Less Provision for diminution in investment**				
M : Less Provision for bad debts***				
N : Operating Profit/(Loss) (I + J + K – L – M)				

* These figures relate to the projected period

** Valued in aggregate for each category of investment within the general takaful fund at the lower of cost or market value

*** For amounts outstanding for more than six months from the inception date of the certificate

Appendix III

General Takaful Fund Balance Sheet at the End of Six Months Period			
	Scenario 1	Scenario 2	Scenario 3
	In RM'000		
A : Total assets as at dd/mm/yyyy			
B : Plus Excess of income over outgo before diminution and provision for bad debts (I + J + K Appendix II)			
C : Projected total assets (A + B)			
D : Less Stress factors			
(i) Provision for decline in KLCI			
(ii) Provision for other secured financing			
(iii) Provision for amount outstanding from intermediaries and agents			
(iv) Decline in property values			
Total (D)			
E : Adjusted total projected assets (C – D)			
F : Less Estimated projected liabilities			
G : Surplus/(Deficit) (E – F)			

Appendix IV

**General Takaful Fund Balance Sheet as at End of Six Months Period Based on
 Authorised Assets**

	Scenario 1	Scenario 2	Scenario 3
	In RM'000		
A : Adjusted total projected assets (E Appendix III)			
B : Less Non-authorized assets			
C : Adjusted total projected authorised assets (A - B)			
D : Less Estimated projected liabilities (F Appendix III)			
F : Surplus/(Deficit) of assets over liabilities (C – D)			
G : Plus Transfer of net assets from shareholders' fund			
H : Surplus/(Deficit) after transfer of assets from shareholders' fund (F + G)			

Appendix V

Stress Test for Family Takaful

Simplified Family Takaful Fund Revenue Account (individual and consolidated family fund basis) for the 6-Month Period Ended dd/mm/yyyy Projections for Six Months Period (Scenario 1/2/3)

Simplified Revenue Account	As reported during current half year ending dd/mm/yyyy	Projections		
		6-Months Projections		
		Scenario 1	Scenario 2	Scenario 3
		In RM'000		
A : Net Contribution*				
B : Less Net Certificate Benefits*				
C : Less Net Agency Remuneration*				
D : Less Management Expenses*				
E : Plus Net Investment Income*				
F : Plus Other income/(outgo)*				
G : Excess of income over outgo before diminution in value of investments (A – B – C – D + E + F)				
H : Less Diminution in value of investments**				
I : Excess of income over outgo after diminution in value of investments (G – H)				
J : Less Increase in certificate liability				
K : Surplus/Deficit arising (I – J)				

* These figures relate to the projected period

** Valued in aggregate for each category of investment within the family takaful fund at the lower of cost or market value

Appendix VI

Family Takaful Fund Balance Sheet (Individual and Consolidated Family Fund Basis) as at End of Six Months Period

	in RM'000		
	Scenario 1	Scenario 2	Scenario 3
A : Total assets as at dd/mm/yyyy			
B : Plus Excess of income over outgo before diminution (G Appendix V)			
C : Projected total assets (A + B)			
D : Less Stress factors			
(i) Provision for decline in KLCI			
(ii) Decline in property values			
(iii) Provision for secured financing			
(iv) Provision for investments in subsidiaries/associated companies			
(v) Provision for foreign exchange losses			
Total (D)			
E : Adjusted total projected assets (C – D)			
F : Less Estimated projected liabilities			
(i) Actuarial liability			
(ii) Other balance sheet liabilities			
G : Surplus/(Deficit) (E – F)			

Appendix VII

**Family Takaful Fund Balance Sheet as at End of Six Months Period Based on
 Authorised Assets (Consolidated Family Fund Basis)**

	in RM'000		
	Scenario 1	Scenario 2	Scenario 3
A : Adjusted total projected assets (E Appendix VI)			
B : Less Non-authorised assets			
C : Adjusted total projected authorised assets			
D : Less Projected estimated liabilities (F Appendix VI)			
E : Surplus/(Deficit) of assets over liabilities (C – D)			
F : Plus Transfer of net assets from shareholders' fund			
G : Surplus/(Deficit) after transfer of assets from shareholders' fund (E + F)			