

Risk-based Capital Framework for Malaysian Insurers

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Outline

- Background & objectives for RBC
- Development of Framework
- Overview of RBC Framework
- Implications of RBC
- Impact assessment & way forward



Reasons for revising the capital adequacy framework

- The RBC framework was issued by the Central Bank of Malaysia to all insurers in April 2007
- RBC is the capital adequacy framework for insurers to *replace* existing 'margin of solvency' framework effective from 2009
 - parallel run with existing framework in 2007 to familiarize insurers with RBC requirements

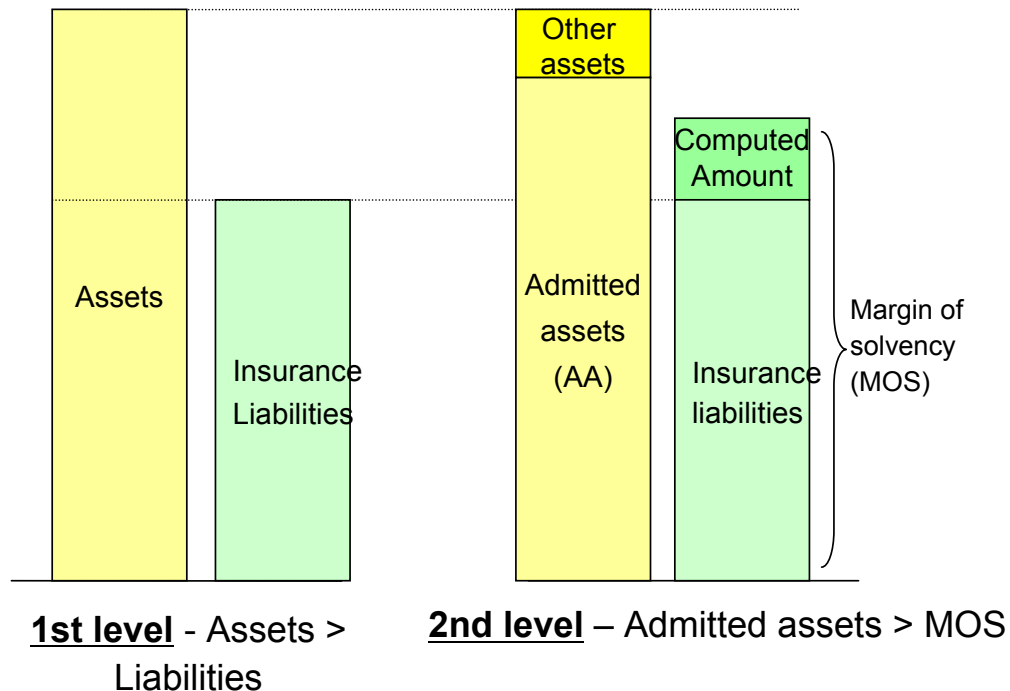


Major reasons for the revision

- Quantify explicitly hidden prudential buffer (due to conservative valuation basis)
- To better reflect risk-profile of individual insurers
- Address shortcomings of existing solvency framework
- Incentivise better risk-management
 - Insurers with weaker measures would require higher capital
- Provide early warning of deterioration in capital adequacy levels so that intervention can be done promptly
- Recognizes on-going international developments on -
 - Standard solvency framework & fair valuation accounting



Current solvency requirements - 2 levels of insurance fund solvency



- Conservative valuation of assets – based on book values
- Conservative & prescriptive valuation of liabilities (NPV basis @ 4%)
- Any fund deficiency to be rectified by transfer/assignment (short-term only) of admitted assets from shareholders' fund or other insurance funds
- 'Computed amount' must be maintained in insurance funds – simplistic computation of CA
- AA – limits specified according to asset classes



Computed Amount

For life insurance funds

Broadly, aggregate of -

- 4% of liabilities
- 0.1% of sum at risk for life policies with term \leq 2yrs
- 0.2% of sum at risk for life policies with term $>$ 2yrs
- 25% of premium for extension of life policies

For general insurance funds

Broadly, higher of -

- Aggregate of 25% of first RM50m premiums & 20% of balance, or
- Aggregate of 26% of first RM25m of net incurred claims & 23% of balance

Amount computed above is subject to following **minimum limit** -

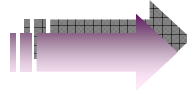
- RM50m for direct insurers & local reinsurers
- RM10m for foreign reinsurers



Shortcomings of existing solvency framework

Current

- ☞ 'One-size-fits-all' approach
- ☞ Not calibrated to major risks & provide incentives for good risk management
- ☞ Highly prescriptive with limited investment flexibility
- ☞ Valuation of assets & liabilities based on estimates, with hidden margins

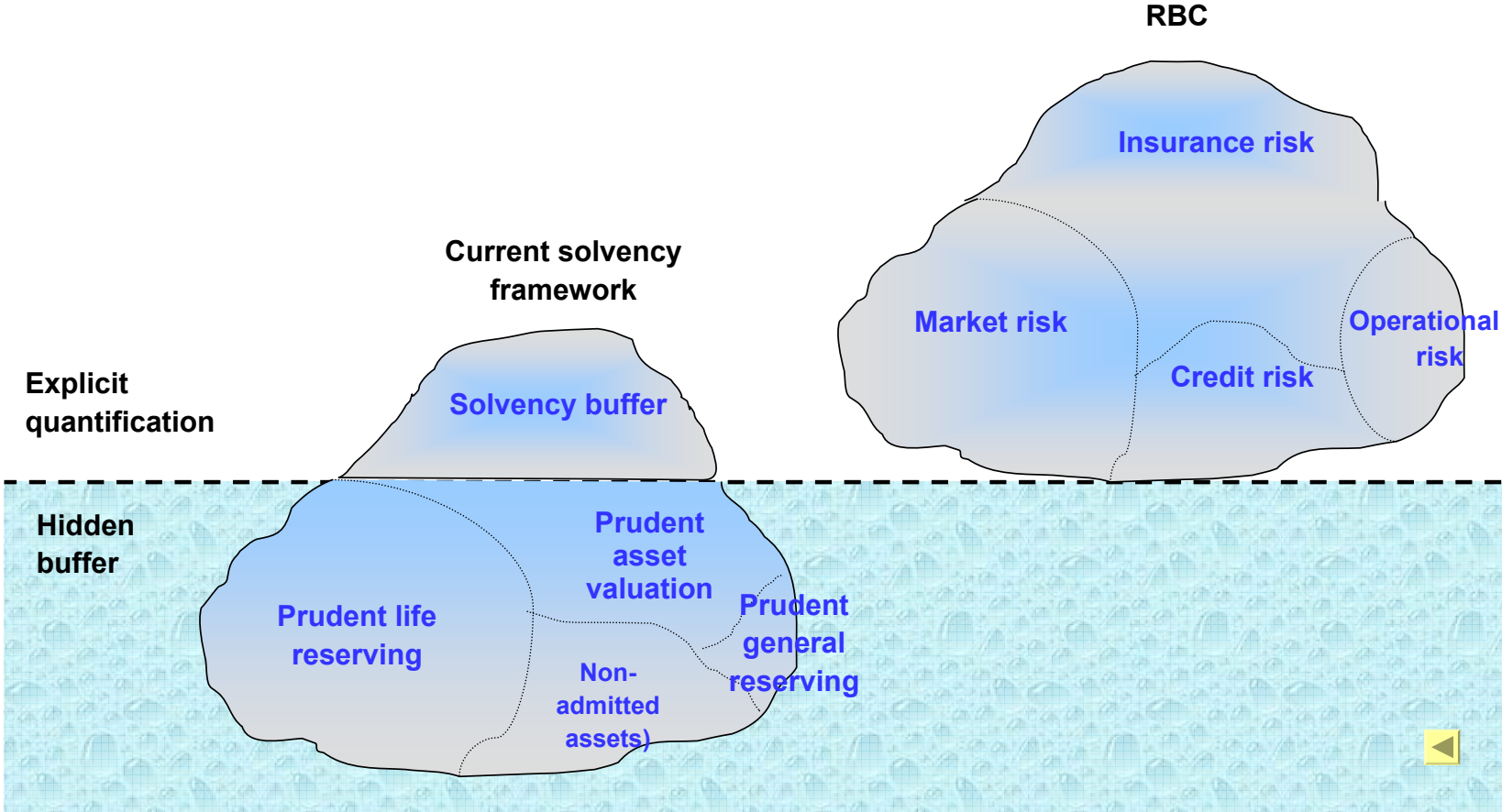


Desired

- ✓ Risk sensitive & covers all major risks
- ✓ Encourage better risk management
- ✓ Greater investment flexibility
- ✓ Explicit & transparent margins for prudential purposes
- ✓ Simple and Comparable
- ✓ Control levels which allows progressive supervisory intervention



Hidden buffers under current solvency framework will be quantified explicitly under RBC



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Development of RBC framework

- RBC developed with industry's inputs and involvement
- Extensive consultation process with industry
 - feedback received on 3 consultative papers issued in 2004 & 2005
 - potential impact of RBC on the industry through 3 test surveys conducted in 2005 & 2006
 - feedback received during individual meetings with selected insurers
- Risk capital charges were derived with inputs from industry
- Special joint committees formed to address key areas (e.g. valuation basis for life business)



Unlike banking, there is no standard framework on capital adequacy for insurers

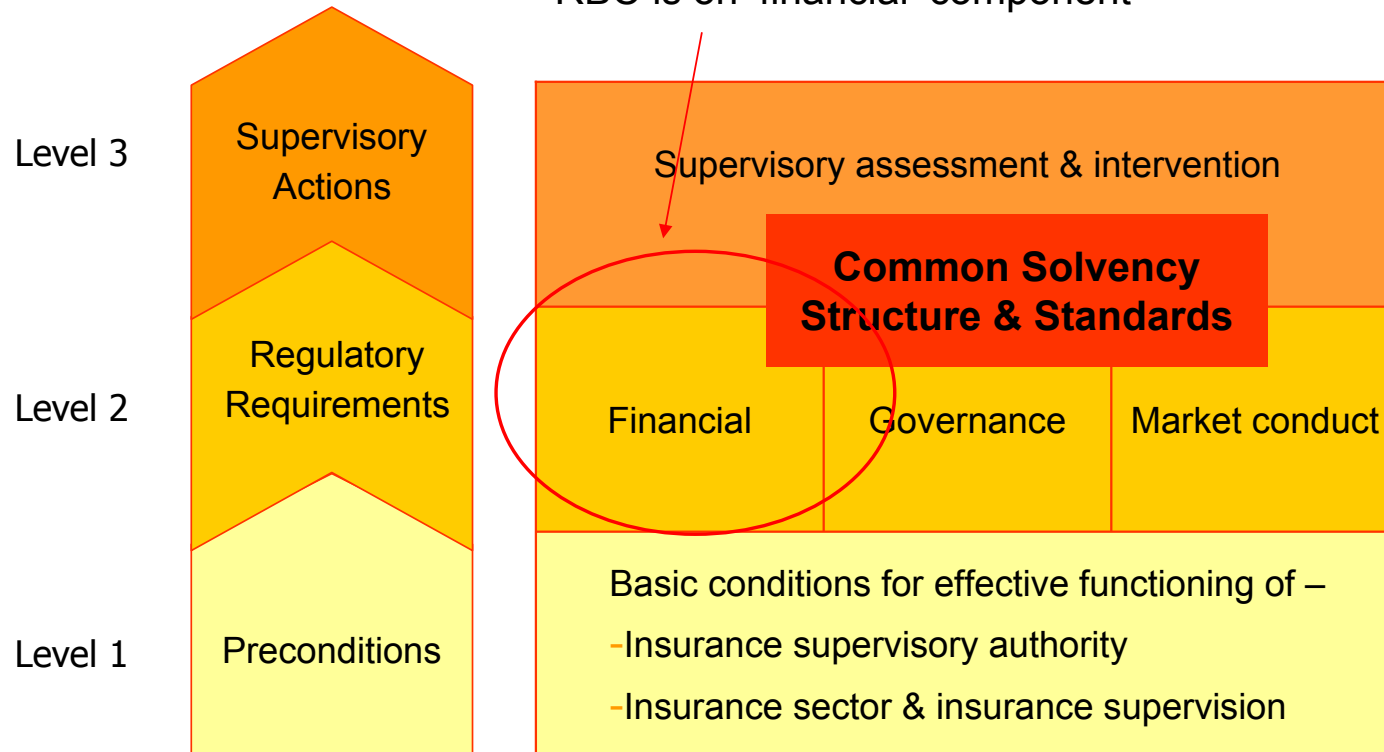
RBC framework referenced against –

- IAIS' papers on solvency 
 - common structure for assessment of insurer solvency Feb 2007
 - supplemented by further standards & guidance papers on regulatory requirements & supervisory assessments & interventions
 - principle-based; does not prescribe specific solvency regime for all jurisdictions
- International developments
 - European Commission's project on Solvency II
 - International Actuarial Association's papers on solvency
 - Basel II for banks
- Practices in countries with similar framework 
 - Canada, Australia, Singapore
- Framework will be further fine tuned taking into account IAIS and Solvency II completed initiatives



IAIS' framework for insurance supervision emphasizes interdependence of regulatory components & supervisory actions

RBC is on 'financial' component



Principles underlying RBC fundamentally consistent with IAIS structure element on solvency framework

- Risk sensitive regulatory financial requirements which provide incentives for optimal alignment of risk mgmt by the insurer & regulation
- A solvency regime which addresses relevant potentially material risks
 - Readily quantifiable or non-quantifiable risks
- Total balance sheet approach
 - Recognise interdependence btw assets, liabilities, cap. requirements, cap. resources
- Market consistent insurance contract valuation methodology / basis
 - As expected to be used by market players, had there been deep liquid secondary for insurance contracts.
- Market consistent valuation of technical provisions should be based on risk characteristics of portfolio
- Technical provisions should include risk margin over the estimate of obligations
- Purpose of capital – to ensure that, in adverse conditions, policy claims & obligations will be met
- Calibration of relevant assumptions to take into account diversification



RBC already implemented or being developed, in various forms in many jurisdictions (as of Dec 06)

Countries already adopting RBC

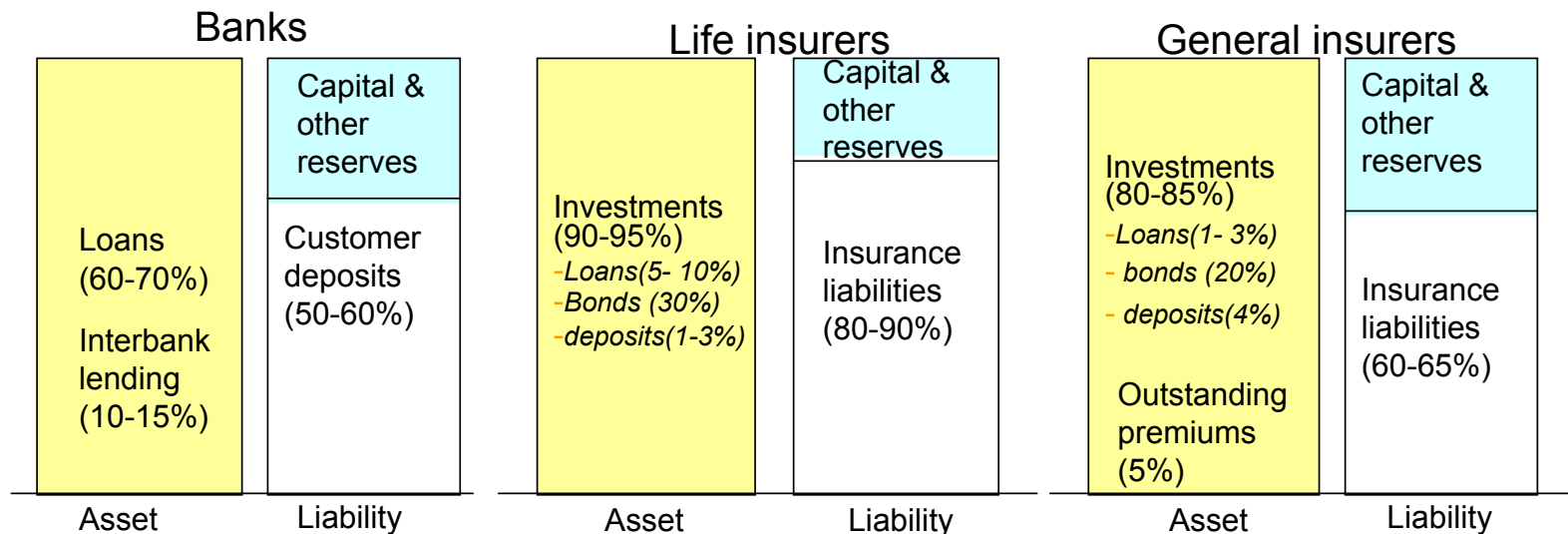
- Canada
- USA
- Australia
- Japan
- Indonesia
- Taiwan
- Singapore

Countries currently developing RBC

- Malaysia
- EU countries
- UK
- China
- India
- Hong Kong



Different core activities reflect different emphasis on regulation of capital relative to provisioning/ reserves between banks and insurers



Major source of risks

- Credit risk from lending activities
- Liquidity risk
 - deposit withdrawal
 - illiquid assets (loans)

Major source of risks

- Mis-estimation of insurance liabilities- most important
- Credit risk confined to debt exposure - not major source
- Supportability of guaranteed rates in pricing
 - interest rate mismatch

Major source of risks

- Mis-estimation of insurance liabilities- most important
- Interest rate risk not major source of risks because of short liability duration
- Credit risk confined to debt exposure - not major source

Source: IAIS-BCB Joint Forum paper



...approach is different due to nature & profile of insurance business

- Risk of mis-estimation of insurance liabilities addressed thru both allowance for PRAD and capital charge requirement
 - No similar requirement for banking deposits (liabilities) as amount largely certain
 - however, IRB approach similar concept to PRAD
- Entire assets in balance sheet subject to same market and credit risk charges, where applicable
 - Unlike banking where risk charges vary according to trading and banking book
- Use of longer assumed investment horizon to reflect long term insurance obligations
 - approach consistent with principles recommended by IAIS
- Broad approach to determine credit risk charges
 - due to small exposure to credit risks (loans constitutes 5% of total assets)
 - Additionally, credit risks mitigated thru prudential limits (5% cap on non-investment grade bonds)
 - consistent with approach in benchmark jurisdictions (e.g. S'pore, Australia, Canada)
 - charges to be broadly harmonised, taking into account broad similarity with banking industry



...approach is different due to nature & profile of insurance business (cont.)

- Interest rate risks addressed in regulatory capital requirement
 - an important source of risks because of guaranteed benefits given
 - approach consistent with principles recommended by IAIS
 - Unlike banking, where interest rate risk in banking book likely addressed under Pillar II
- Liquidity risk addressed thru min holding of certain liquid assets
 - not a major risk for insurers
 - unlike banks, which are exposed to bank runs and illiquid investments from lending activities (captured under liquidity framework)
- Excessive concentration to asset class or counterparties subject to 100% risk charge
 - For banks addressed thru **hard limits** (e.g. single counterparty, shares, properties)



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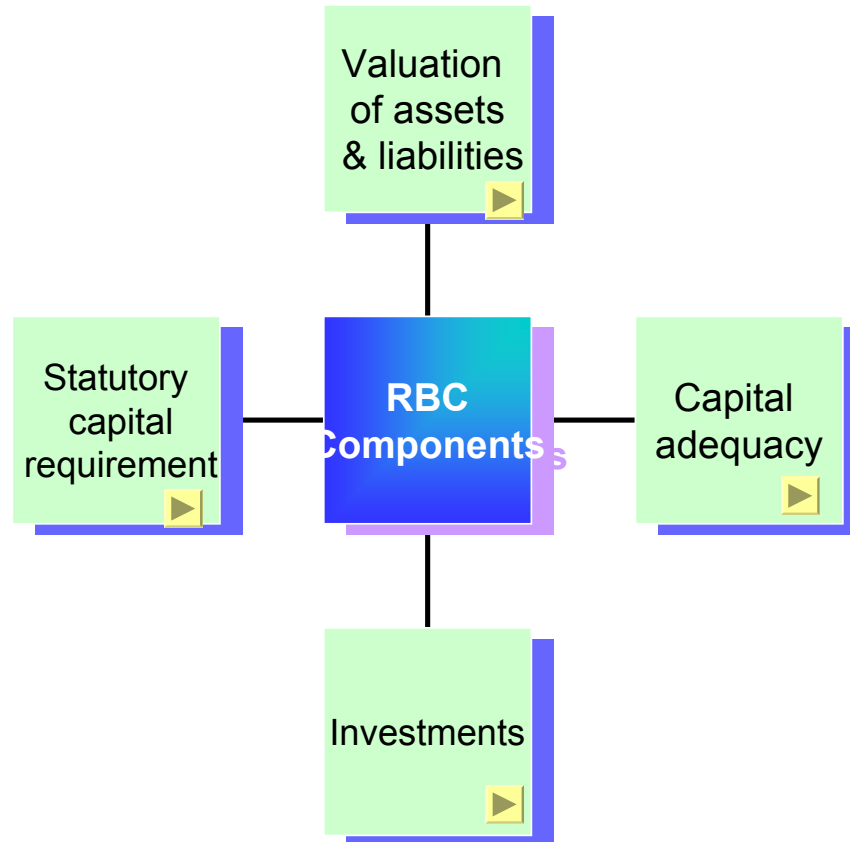


Applicability of framework

- Direct insurers (& reinsurers)
- Covers Business within & outside Malaysia
- Branch of foreign insurers
 - exemption from framework may be given for business outside Malaysia, subject to:-
 - Explicit agreement from branch's head office (HO) that liabilities from business outside Msia fully supported by HO
 - Strong financial position of branch's group
 - Branch subject to consolidated supervision by recognised & competent home supervisory authority

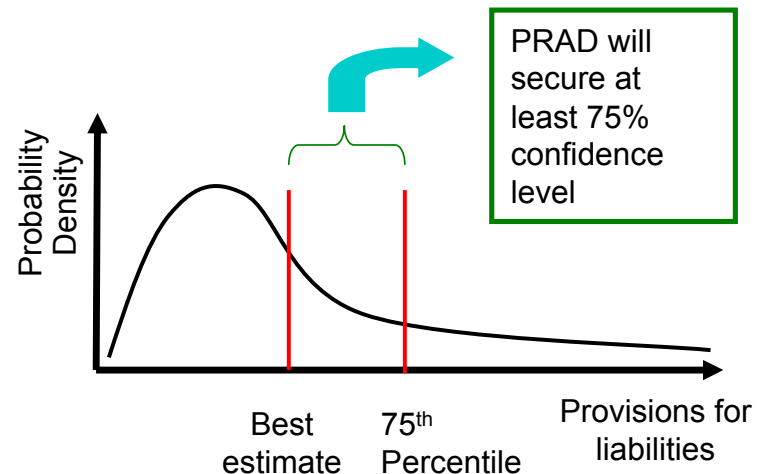


4 major components of RBC Framework



Valuation basis for assets & liabilities to be more realistic, more transparent & consistent with international practices

- Current valuation basis is conservative with hidden margins
- Valuation basis under RBC to be reviewed -
 - more transparent & based on best estimate assumptions
 - consistent with international developments
- Valuation basis for **assets** under RBC to be streamlined with that for public financial reporting (i.e. MASB standards), with guiding prescriptions to reflect specific aims of prudential supervision
- Valuation basis for **liabilities** to be based on best estimates & with additional prudential margin (PRAD) to cater for mis-estimation of the mean
 - PRAD requires adjusting assumptions such that overall level of reserves will be at min 75% CL
 - international accounting standards for insurance liabilities expected by 2010 may require certain adjustments to RBC valuation basis



Liability Valuation principles for Life & General

- Use of Methods and assumptions which are-
 - (a) appropriate to business and risk profile of business
 - (b) consistent from year to year
 - (c) include appropriate margins for adverse deviations
 - (d) consistent with one another
 - (e) in accordance with generally accepted actuarial best practice
 - (f) accord level of guarantee for reserve held against liabilities, no less certain than that accorded by MGS (Malaysian Government Securities)
 - (g) consistent with principles of fair valuation, where possible & appropriate
 - (h) secure overall level of sufficiency of reserve at no less than 75% CL
 - (i) considers fair treatment of policyholders overall (Life only)



New Valuation Basis for Life and General

Life insurance valuation

- valued using prospective method
 - = PV (guaranteed & non-guaranteed benefits, expected future expenses) less PV (future gross premiums)
- Valuation of UL and annuities adapted from CRVM/CARVM methodology using GPs
- Reserve is the higher of guaranteed benefits discounted at risk free rate or total benefits including discretionary at proxy corporate bond rate
- Future discretionary benefits based on past practices and PRE
- Reinsurance allowed for reserve credit
- Minimum stat surrender values removed
- Par SVs based on asset share
- Negative reserves are zeroed at fund level
- Any diff between SV and reserve at fund level held as capital charge

General insurance valuation

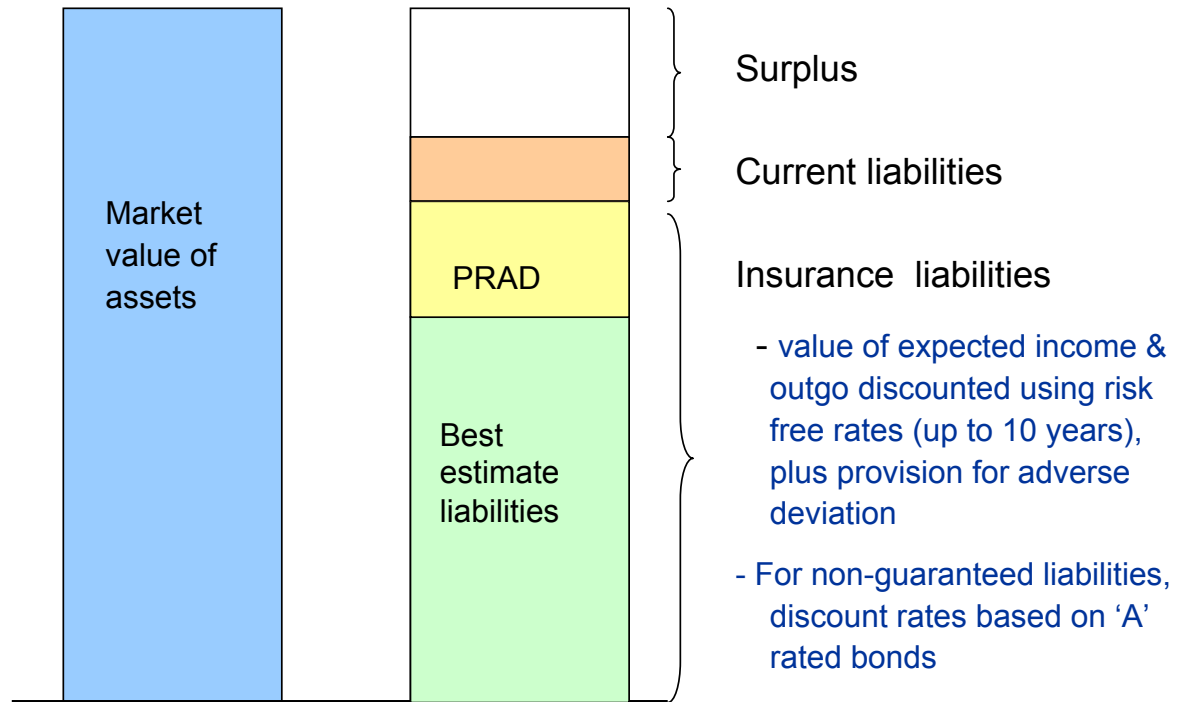
- include premiums and claim liabilities
 - PL = max (Best estimate of reserve for unexpired risk + PRAD, aggregate UPR)
 - CL = BE of outstanding claims provisions inclu CRE + PRAD
- Approach to determining best estimate value+PRAD left to actuary's judgement
- Actuarial certification of reserves will be required
- Diversification credit will be given for correlation between different lines if justified by actuary
- Reinsurance allowed for reserve credit



Liability valuations based on Market Consistent and Unbiased Rates

Basis streamlined with that for public reporting

- e.g. with 4 categories for financial assets




Insurers to compute ‘capital adequacy ratio’ as indicator of financial strength

$$\text{Capital Adequacy Ratio (CAR)} = \frac{\text{Total Capital Available}}{\text{Total Capital Required (TCR)}} \text{ where}$$

$$\text{TCR} = \sum (\text{capital charges for market, credit, insurance \& operational risks})$$

■ Capital Available

- Aggregate of ‘Tier-1’ & ‘Tier-2’ capital, minus deductions for assets not readily available to meet policyholders’ obligations (e.g. goodwill & investment in subsidiaries) 
- Criteria for capital includes permanence & free from encumbrances
- Classification is similar to that for banking, except for inclusion of some instruments peculiar to insurance business (e.g. surpluses of insurance funds)

■ TCR applicable for insurance funds & assets in shareholders’ fund



Capital instruments categorised into 3 groups according to permanence & availability to absorb potential losses

Requirement

- Tier-1 capital \geq 50% of total capital available

Tier-1 (core) capital

- Paid-up ordinary shares
- Working capital (for foreign insurers)
- Share premiums
- Non-cumulative irredeemable preference shares
- Valuation surpluses for insurance funds

Tier-2A (higher supplementary) capital

- Cumulative irredeemable preference shares
- Mandatory loan stocks
- Irredeemable subordinated debts

Similar to requirements for banks except these components

Tier-2B (lower supplementary) capital

- Subordinated term debts
- Limited life preference shares
- Other approved limited life capital instruments with maturity \geq 5 years



Total Capital Required (TCR) meant to ensure insurer is sufficiently robust to meet obligations to policyholders under reasonably foreseeable circumstances

- TCR is the aggregate of –
 - i. **Market risk capital charges** - to mitigate risks arising from loss of market value & non-parallel movements between values of assets & guaranteed liabilities due to interest rate movements
 - Equity & property risks - % of exposures
 - Currency risk – 8% of unmatched currency position
 - Interest rate risks – assets & guaranteed liability position subject to prescribed interest rate shock
 - ii. **Credit risk capital charges** – to mitigate risks arising from losses due to default by counterparty
 - vary according to rating (e.g. reinsurers' rating)
 - iii. **Insurance liabilities capital charges** – to mitigate risk of under-estimation of insurance liabilities & adverse claims experience
 - General ins - % of PL & CL, varying by lines of business
 - Life ins. – broadly, difference between liability reserving at 99.5% & 75% Confidence Level
 - iv. **Operational risk capital charges** – to mitigate risk of loss resulting from inadequate or failed internal processes, people & systems or from external events
 - fixed % of total assets, across funds including IL funds





Comparison of risk charges with selected countries

Insurance class	Malaysia	Singapore	Australia
Asset risk charges			
Credit risks for govt securities	0%	0%	0.5%
Credit risks for 'A' rating PDS	4%	1.6%	4%
Market risks for securities with 5-yr term	4.1%	3.25%	Not applicable
Market risks for listed shares	20%	10%	8%
General insurance claims risk charges			
Motor (compulsory covers)	25%	30%	15%
Hull	30%	30%	11%
Cargo	25%	25%	11%
Life insurance liabilities risk charges (as a ratio to statutory mortality table)			
Mortality (for non-annuity biz) -			
▪ with guaranteed premiums	140%	125%	75% to 150%
▪ without guaranteed premiums	120%	112.5%	

- Market risk charges broadly higher compared to other countries - reflecting smaller & more volatile local market
- Credit risk charges broadly aligned with that under Basel II
- General insurance claims patterns also more stable in developed markets



Greater investment flexibility for insurers but must be supported by proper control mechanisms

- Investments will be based on insurer's own investment policy, approved & regularly reviewed by its board 
 - to be supported by proper control mechanisms to ensure proper execution & monitoring of investments
 - insurers to establish dedicated board-approved committee with responsibility for investment mgmt in accordance with approved investment policies & strategies
- Greater flexibility would allow better match of investments with liability profiles & risk appetite
- Investment limits substantially removed, except for prudential limits 
 - investments exceeding the limits attract 100% capital charge (in some countries, e.g. Canada, limits are absolute)
 - except for foreign assets where limit is absolute
- Insurers with weak investment management capabilities may be subject to additional prudential requirements



Insurer to have investment policy & rigorous control measures in place

- Investment policy provides broad investment strategies and control mechanism to ensure proper execution & monitoring of investments
- Coverage of investment policy to include -

Investment strategies

- reflecting risk appetite & liability profile of the insurer
- strategic asset allocation
- limits for illiquid or highly volatile assets
- policy on use of risk mitigating tools (e.g. derivatives & products with embedded derivatives)

Investment control mechanisms

- adequate internal controls
- rigorous audit procedures on investment activities
- effective procedures to monitor & manage asset/liability position
- contingency plans to mitigate effects of any deteriorating conditions
- regular oversight & monitoring by board on investment process & performance
- key staff to have appropriate levels of skills, experience, expertise & integrity



Investment limits substantially removed, except for prudential limits

Asset class	Current limit ^{1/}	RBC	
		Life	General
Low-risk assets	10% (minimum)	Removed	Removed
Cash & deposits	5% for DFIs	“	“
Collective investment schemes	10%	“	“
PDS & loans	50%	“	“
Loans supported by life policies	20%	“	Not applicable
Shares (listed) ^{2/}	30%	“	30%
Properties	20%	“	20%
Foreign assets	5%	10%	10%

Short-term volatility of stock does not correspond well with short-term nature of general insurance liabilities

To mitigate duration mismatching

Higher limit to improve duration matching & yield

^{1/} As % of total assets of individual funds

^{2/} Currently confined to main board shares, to be expanded to shares listed on other recognised exchanges in Malaysia (on-shore)



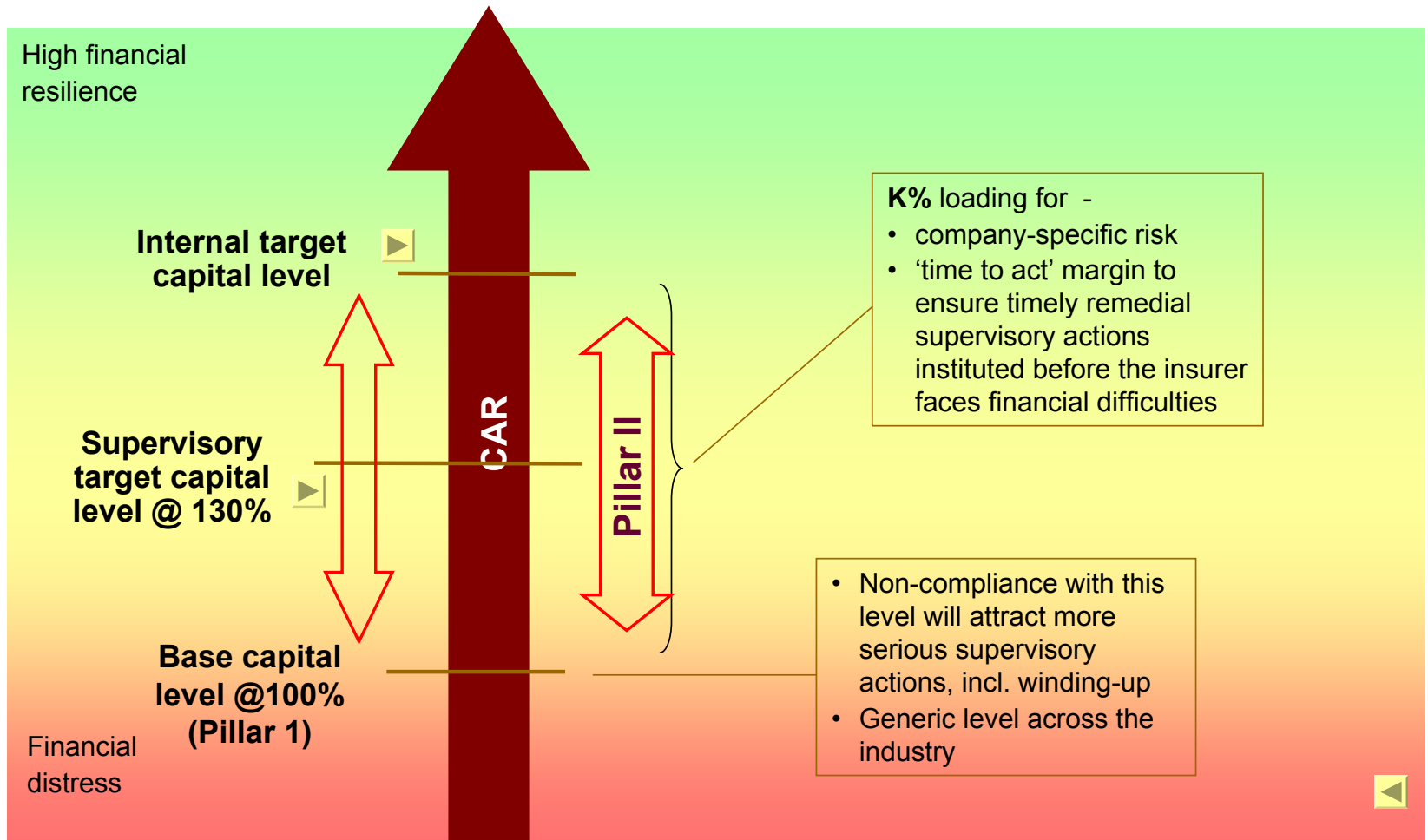
Prudential investment limits also aim to minimise risk arising from over-exposure to high risk investments

	RBC ^{1/}	Current (admitted assets)
Unlisted equities	5%	Not admitted
Non investment-grade PDS	5%	“
Unsecured loans	5% (sub-limit – 1%)	With BNM’s approval

^{1/} As % of total assets of individual funds



Individual insurers to meet internal target capital level



Each insurer expected to set internal target capital level appropriate to its risk profile

- Each insurer expected to set own internal target capital level by 2009 appropriate to its risk profile
 - internal target capital must reflect its specific risks which may not be adequately captured by capital charges under RBC
 - this target level should be set using stress & scenario tests
- ITS will adjust this target level where necessary
- Capital management plan from each insurer required to ensure:
 - internal target set at a level appropriate to risk profile at all times
 - sufficient capital available to meet internal target at all times



Supervisory target capital level aims to allow time for remedial actions

- Under Risk Based Supervisory Framework, pre-emptive intervention is necessary to avoid amber status:
 - need to allow **time** for early enough remedial action, to provide a realistic opportunity for an insurer's problem to be rectified
 - conditions can deteriorate very quickly in some cases
 - restructuring/intervention efforts can take a lot of time
 - achieved by creating a “time to act” buffer above the base capital level
 - in accordance with IAIS Principles on Capital Adequacy and Solvency
- When RBC implemented in 2009, the supervisory target capital level will be set at 130% for all insurers
 - Each individual insurer's internal target CAR will depend on its risk profile, but it must not be lower than the supervisory target capital level
- Insurers with CAR below 130% will attract more severe supervisory action, incl. being required to inject new capital or realign portfolio to reduce charges
 - intervention for insurers not meeting its internal target but still above 130%, will depend on the circumstances & remedial plans in place




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Implications to players


■ Insurers

- More volatile financial results & capital adequacy requirements
 - Reflective of market situation, but difficult for insurers to manage
- Shift in mindset on approach to liability valuation
 - Delinking of discount rates assumption for liability valuation from expected portfolio yield
- Expectation to improve overall risk management level
 - Increase sophistication in product pricing
 - More structured risk identification, monitoring & mgmt
 - More proactive assessment on extent of risk taking and risk mitigation (e.g. reinsurance, derivative hedging) activities
- Greater responsibilities placed on senior mgmt & board of directors 



Implications to players

■ Regulator

- greater emphasis on roles of supervisors in the assessment of insurers 
- Work more closely with market players to facilitate insurers' needs for better risk management tools/processes
 - Supportive on initiatives to issuance of longer term financial instruments in capital market to improve ALM position of insurers

■ Policyholders

- greater protection of interests of policyholders in the long run
- more innovative & better value products arising from increased competition
 - Insurers move towards selling less capital intensive products – e.g. investment linked



RBC is part of a wider supervisory framework

- Capital is one of several key considerations when assessing safety & soundness of insurer
- Good risk mgmt practices is first line of defence – key to successful adoption of the RBC & RBSF
 - holding adequate amt of capital is only part of sound risk mgmt framework
- Holistic review of risk mgmt practices under RBSF
 - covering board & senior mgmt oversight, risk mgmt framework (incl. its operationalisation), internal audit & compliance, information & communication framework



Roles of Board of Directors & Senior Management in Capital Management

■ Roles of Senior Management:

- develop, implement & monitor capital management policies, process & procedures
- establish infrastructure to support management oversight of the capital management process
- report to the board regularly

■ Roles of Board of Directors:

- provide oversight for the development & implementation of capital management policies and procedures
- provide oversight on the capital management process
- actively engage in capital management discussions, concerns & recommendations
- ensure the management provides regular updates to the board



Systems & risk management practices should be proportionate with nature, scale & complexity of business

- Larger & more complex insurers expected to maintain greater level of sophistication in risk mgmt
 - e.g. insurers which underwrite large & specialised risks (e.g. oil rigs, cat cover) expected to have in place sophisticated modeling techniques
- Depth & complexity of supervisory review process driven by the level of supervisory expectations
- Risk mgmt thinking process must be integrated with business strategies
 - strategies that bring sustainable growth without compromising prudence
 - considerations on balance between risks & opportunities



Increasingly challenging roles for supervisors

- Increasing roles for supervisors to assess financial health of individual insurers & validation of:
 - valuation methodologies for assets & liabilities
 - effectiveness of hedging strategies
 - appropriateness of reinsurance transactions
 - impact of investment strategies & policies
- ... and set individual insurers' internal target capital level
 - assessment of risks in each significant activity
 - quality of risk mitigant measures
- Ability to evaluate & assess internal models adopted by individual insurers



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Insurers should start working towards ensuring successful implementation

- RBC will be effective in 2009
 - insurers with sufficient capacity may opt for adoption in 2008 based on approved capital management plan
- Expectations during the parallel run:
 - familiarisation with framework requirements, at all levels
 - assess capital positions vis-à-vis business strategy & develop capital mgmt plan
 - improvements to risk management practices
 - undertake enhancements to existing systems & capabilities
 - engage in frequent communication with supervisors in relation to supervisory expectations & company's decisions
- Insurers encouraged to set up risk mgmt team to develop capabilities, including areas covering:
 - capital management
 - internal capital modeling



Moving forward, regulatory direction...

- Amendment to key guidelines & frameworks
- Frequent communications between Bank & insurers to facilitate implementation
- Continuous upgrade of supervisory capabilities to assess insurers' risk mgmt processes
- Continuous review of RBC framework
 - with reference to international developments and IAIS' principles on solvency assessments
 - incl. work on internal modeling
- Development of risk based capital adequacy framework for Takaful operators
 - unlevel playing field because of lower capital requirements
 - minimize regulatory arbitrage



End of presentation

