# RBC Seminar: 24 October 2013

## Q&A Sessions

### *Life*

***Question 1:***

**The calculation of "reinsurance risk exposure" was not very clear. Need more explanation.**

***Answer:***

Final framework on RBC model gives a detailed explanation regarding reinsurance risk exposure. Details are as follows:

Basically what is considered as reinsurance risk exposure is credit risk where reinsurance counterparty fails to pay in full in timely manner. This risk includes both the default risk on net reinsurance receivables as well as the risk related to the reduction in the liabilities, i.e., the risk that a reinsurer default would require the insurer to hold the gross liabilities rather than the net liabilities on the balance sheet.

Where the Reinsurance risk exposure is the sum of:

- Amounts due from reinsurers, including claims recoverable and ceding commissions
- Reinsurance recoveries in respect of claims incurred, including ceded claims liabilities;
  /and
- In case of the Long Term insurance business, the difference between the value of the gross liabilities and the net liabilities of the insurer in respect of its participating policies, non-participating policies and investment-linked policies due to reinsurance ceded to that reinsurance counterparty; or
- In case of the General Insurance business, the difference between the gross Premiums Liability and the Net Premiums Liability of the insurer in respect of its general insurance business due to reinsurance ceded to that reinsurance counterparty.

***Question 2:***

**Needed more clarification on arriving at the SVCC, specifically the "market value" amount. A number was determined but not sure/confident about it.**

***Answer:***

The Surrender Value Capital Charge (SVCC) is defined as the aggregate of:

Max {zero, aggregate surrender value of the business in force in respect of policies in the long term insurance fund less the aggregate policy liabilities}

Where the policy liabilities are calculated using

Best estimate liability + Risk Margin = Market Consistent Liability Valuation Method
The SVCC is calculated as the sum of the SVCC determined separately for non-participating policies, participating policies, and unit-linked policies. For each category, the policy liabilities are calculated using the market consistent valuation method required by the framework (you already have this piece above). The surrender value for a policy is determined as the amount that the insurance company would pay the policyholder if they voluntarily terminated the policy at the valuation date. For some policies, this value may be negative or zero, and in this case, the value is taken as zero.

The total policy liabilities are compared with the total surrender values for each category, and the higher amount is taken as the SVCC.

For unit-linked policies, the surrender value is compared to the total of the non-unit-linked liabilities and the unit-linked funds in order to determine the SVCC.

***Question 3:***

**Should universal life products be considered as participating business? Fund value is credited based on investment yield for year. This is a product with a minimum guarantee.**

***Answer:***

We will consider treating universal life products separately for liability calculation in the future. In the interim, the following guidance applies:

A "participating policy" is an insurance contract that pays dividends to the policyholder, where these dividends are generated from the profits of the insurance company. Dividends are typically paid out on an annual basis over the life of the policy, and may include a terminal bonus. Some participating policies include a guaranteed dividend amount, which is set at the inception of the policy. Participating policies may also be called "with profits" policies.

A universal life policy is an insurance policy where premium in excess of the "cost of insurance" is credited to the cash value of the policy. The cash value of the policy receives monthly interest, and each month, the cost of the life insurance, as well as any charges or fees, is withdrawn from the cash value. The interest that is credited to the cash value may be determined in a number of different ways: for example, it may be based on an external index or it may be set by the insurance company each year. It may have a guaranteed minimum. The cash values may also be allocated to unit-linked investments, so the investee t earnings for the policy are based directly on the earnings of the unit-linked funds.

Universal Life products may be participating or non-participating: it will depend on what is stated in the contract. It is not the calculation of the crediting rate that defines whether or not a policy is participating; it has to do with whether or not the policyholder shares explicitly in the profits of the insurance company. An insurance contract should indicate specifically whether or not the policy is participating, and how participating dividends will be determined and paid to the policyholder.

Assets backing participating policies are usually maintained in a separate "ring-fenced" investment funds, so that the profits from the participating business can be allocated more accurately to the participating policies, and without impacting the non-participating policyholders.

***Question 4:***

**Should coupon receipts be considered for asset cash flows?**

***Answer:***

Yes, coupon payments should be included in the asset cash flows that are input and used to determine the interest rate risk charge.

***Question 5:***

**Should new investments (from future premiums of in force business) be considered for asset cash flows?**

***Answer:***

New investments from future premiums of in-force business (i.e. reinvestment/future cash-flows) are not considered as asset cash-flows. Only the assets currently held by the company are considered for asset cash-flows.

***Question 6:***

**What if there are no products with guarantees? How do you determine your liability cash flows to compute interest rate risk capital charge?**

***Answer:***

The interest rate risk charge is intended to capture the impact of interest rate shocks on the net present value of the "surplus", that is, the present value of the assets less the present value of liabilities. For policies where the benefits or policy provisions can be unilaterally changed by the insurer if interest rates

change, without any limitations, the liabilities will not have any inherent interest rate risk, and can be excluded from the liability cash flows.
However, most insurance policies will have some limitations or guarantees in the policy provisions, even if there are no explicit guarantees on the policy crediting rate. For example, for unit-linked products where the crediting rate is fully linked to the earnings on the unit-linked funds, there are likely to still be guaranteed elements, such as the sum insured, or the amount of the monthly charges for cost of insurance and policy fees. These are the components that will make up the non-unit-linked liabilities, and that should be included in the liability cash flows for the calculation of the interest rate risk charge.

In order to determine which elements to include, cashflows should initially be projected for all components of a policy, including future premium assumptions, death or maturity payments, other benefit payments, dividends, expenses, etc. This will make it clearer which components are guaranteed (relative to interest rates), and which are not. The non-guaranteed elements, such as future investment income on unit-linked funds, or future dividends on participating policies, do not need to be included in the liability cashflows for the interest rate risk charge calculation.

***Question 7:***

**How was the zero coupon curve determined? I understand it is based on the SL government bond. But is there one specific methodology used to derive the ZC curve based on the SL government bond rates?**

***Answer:***

IBSL will produce and publish a standard quarterly risk free interest rate curve for solvency calculation.
With prior approval from IBSL, insurers may use an alternate risk free yield curve until IBSL Risk Free Interest Rate Curve is published. Alternate risk free yield curve should be developed using an appropriate mathematical model i.e. using an econometric method and is consistent with current Sri Lankan government bond rates.

***Question 8:***

**Under the universal life platform, our annual crediting rate is declared based on the interest rate/yield curve. Interest rate shocks should be almost completely absorbed into the policyholder fund. However the template does not allow one to enter different cash flows based on the interest rate shocks. For example, if interest rates are shocked down we would declare a lower crediting rate, which would pass on all or most of the difference to the policyholder.**

***Answer:***

This will be looked in future.

***Question 9:***

**Can we have a reinvestment plan for our assets? Given the lack of availability of longer term investment products, our asset duration is much lower than the liability duration. In this situation can we assume matured assets are reinvested net of liabilities?**

***Answer:***

Reinvestment cash flows are not included in the asset cashflows; only currently held assets should be considered.

If the asset duration is much lower than the liability duration, such as in this case, then it will indicate the presence of interest rate risk, or asset/liability mismatch risk. For example, if interest rates were to change today, immediately, then the market consistent value of the liabilities would change disproportionately to the market consistent value of the assets: this would affect the surplus on the market consistent balance sheet, which in turn affects the calculation of total available capital under the RBC calculation. This is the risk that we are trying to measure in the determination of the interest rate risk capital charge.

While you should have an appropriate reinvestment strategy for your assets, and this might be used for business planning or other purposes, reinvestment assumptions should be excluded for the purposes of determining the impact of interest rate shocks on the RBC balance sheet.

***Question 10:***

**Should we NOT include liability cash flow for product/policies without ANY guarantees or options?**

***Answer:***

Should include and shall be evaluated by projecting future cash flows in order to determine if future expenses can be met without additional finance or capital support for the duration of policy

***Question 11:***

**Split universal life cash flows. Our UL product characteristic is such that we declare annual crediting rate each year. In effect once these are declared it is guaranteed: I believe some of our products are UL with par characteristics.**

***Answer:***

This will be looked in future.

***Question 12:***

**In Sri Lanka, the valuation given by the valuers cannot sometimes be relied upon. I say this because two different valuers could or could give two different values; a completely opposite valuation. Considering these fair valuing assets cannot be relied upon unless the valuation process is streamlined. How does RBC address this inconsistency?**

***Answer:***

IBSL has issued Circular # 30 regarding the valuer's qualification criteria.

***Question 13:***

**Under the framework, freehold land and buildings and investment properties need to be valued at "realisable value". However IFRS allows companies to opt for either "cost" or "revaluation" models. So how will companies reconcile the framework difference?**

***Answer:***

As the basis of valuation of assets is different under RBC compared to accounting valuations, there will be a difference in asset values and possibly also in reserves.

Differences in asset valuations should be captured under a mark to market item that is part of retained earnings. A line item will be added to the reporting template for this purpose.
Differences in liabilities between the IFRS valuation and the RBC valuation methodology should be captured as a separate item in the RBC balance sheet, which will be added to the reporting template.

***Question 14:***

**How to treat listed stock sale proceeds receivable? Can we take them as a permitted asset?**

***Answer:***

Listed Stock sales proceeds receivable at the time of preparing financial statements are considered as receivable and hence inadmissible.

***Question 15:***

**The statement "debt instruments with maturity less than 1 year and external rating of…" given under table 5.5 of RBC Framework document does not specify whether the "maturity" means contractual maturity or residual maturity. Clarification please.**

***Answer:***

In the case of short term corporate debts, maturity refers to the contractual maturity, rather than the remaining term of the debt.

***Question 16:***

**Is it only equity investments in related regulated entities (e.g. bank) that are not admissible? Or does it apply to other investments such as debentures and fixed deposits? Does the position change if the related party is the parent company and not a subsidiary?**

***Answer:***

Equity investments and Debentures in listed subsidiaries and related companies which are prudentially regulated financial institutions are considered as inadmissible assets subject to 100% of capital charge.

Investments that are held as fixed deposits in related regulated entities (e. g. a bank) can be considered as admissible assets, and subject to a capital charge. Fixed deposits are not considered an investment in the business of the related regulated entities and would not form part of the available capital of the entity.

It does not matter if the related party is the parent company or a subsidiary, as the intent is to avoid "double-counting" of available capital, which applies in either situation.

***Question 17:***

**Will there be an extension to fulfilling minimum capital requirements?**

***Answer:***

Not at the moment. We have planned for two years parallel run for companies to get ready to comply with RBC requirements.

***Question 18:***

**Need more clarity of guaranteed liability. For example, can we take, yearly renewable riders like critical illness as a guaranteed liability?**

***Answer:***

It appears that the Companies are requesting further clarity on guaranteed liability. Can we include any further details in the rules/guideline?

Any component of a policy that includes a benefit that the policyholder is entitled to, or has a reasonable expectation of receiving, and that the insurer cannot unilaterally change or terminate, should be considered a guaranteed liability. If the policyholder has the right to continue a yearly renewable rider at a guaranteed premium rate, then this should be considered a guaranteed liability. In this situation, it may be appropriate to include separate assumptions regarding the lapse rates for such a riders. If the premium rate for the rider is not fixed or guaranteed, then it may be appropriate to consider it a non-guaranteed liability, particularly if the premium rate changes frequently.

***Question 19:***

**When computing net liability, is it OK to consider reinsurance as a cost in the cash flow?**

***Answer:***

The framework says the following: "Policy Liabilities shall be determined both gross of reinsurance and net of reinsurance. Reinsurance payments recoverable from reinsurers shall be calculated by applying the provisions of the company's current reinsurance contracts to the liability cash flows generated under the final stress scenario used to calculate the Risk Margin."

Reinsurance cash flows do have several components to them: reinsurance premium payable, reinsurance commissions/expense allowances receivable, and reinsurance recoveries on claims. In general, the intent is to reflect all of these explicitly in the liability cash flows, for example, premium cashflows would be net of reinsurance premium paid, and claim benefit payments would be net of expected reinsurance recoveries.

However, if the company is unable to explicitly calculate all of the applicable reinsurance cash flows, reasonable approximations are allowed. In this case, an estimation of the overall impact of reinsurance on the liabilities could be reflected by including this as a component of the expense cashflows. The assumptions used in estimating this approximation should be reasonable based on the insurer's reinsurance arrangements and historical experience. Appropriate disclosure of the approach and assumptions used should be provided.

### *Question 20:*

**Investment in a holding finance company is not admissible? What about listed equities, term deposits or debt securities (in related parties)?**

***Answer:***

Same as response to Q 16

### *Question 21:*

**Reinsurance risk charge: the risk charge is calculated using the counterparty risk factors. In terms of the reinsurance part of the liability (gross – net), it is unclear how to apply to the relevant counterparty (mainly life insurance). Can we use a percentage of each counterparty in the p.f.?**

***Answer:***

The calculation is explained in the framework under Reinsurance Risk Capital Charge. If there is more than one reinsurer, then it is necessary to determine the reinsurance risk exposure for each reinsurance counterparty separately. To do this accurately may require several steps. For example, for the first reinsurer, you would apply the provisions of the reinsurance contract to the gross liabilities, to arrive at a preliminary value for the net liabilities, and the difference would be the ceded liabilities for that reinsurer. Then you would apply the provisions of the next reinsurance contract, and the change in liabilities would be the ceded liabilities for the second reinsurer, and so on. The steps would need to be performed in the order in which reinsurance contracts would take precedence in practice. (Ideally, there would be little overlapping of reinsurance, so this would not be a problem).

The framework also provides that reasonable approximations may be used to estimate the impact of reinsurance, and this extends to the determination of the ceded liabilities included in the reinsurance risk exposure. If the insurer has sufficient historical experience to accurately estimate the exposure to each

reinsurance counterparty as a percentage of the overall reinsurance risk exposure, then this may be a reasonable approximation.

### *Question 22:*

**How to handle expense overruns under RBC framework?**

***Answer:***

The RBC calculation, in itself, is only a snapshot of the insurer's capital position at any point in time. It doesn't capture on-going business issues, such as expense over-runs, in any specific way unless these issues impact the capital ratio. There is no explicit risk capital charge for expense risk in the RBC formula, but if the business is consistently experiencing higher expenses that impact profitability, this will eventually reduce the total available capital and negatively impact the capital adequacy ratio.

However, the insurer is responsible to manage the risks of its business on an on-going basis, including expense risk. Risk-based management requires that the company monitor and evaluate all of its business risks, including expenses, and takes necessary actions to remedy situations that may have an adverse impact.

### *Question 23:*

**What is the rationale to take the negative reserves as it is?**

***Answer:***

For long-term insurance, if there is a negative policy liability for a given product line, this will impact the retained earnings under the RBC market consistent balance sheet, and in fact, may increase the total available capital under the formula. However, the effect of the SVCC is to negate this impact in practice. The surrender value for policies with negative policy liabilities is to be taken as zero, therefore the SVCC for policies with negative liabilities will be greater than zero. When applied to the RCR calculation, the total SVCC may increase the RCR, thus offsetting any increase in TAC as a result of the negative liabilities.

## *General*

### *Question 01:*

**Cash: Why 4% limit? For solvency purposes surely cash is optimal?**

***Answer:***

The 4% limit is intended to be consistent with current Solvency Margin Rules.(although it could be reviewed in future).

100% cash is not the most optimal asset allocation for an insurer, even for solvency purposes. An asset portfolio invested solely in cash would expose the insurer to considerable interest rate risk, as well as increased concentration risk and potentially increase operational risk due to the need for handling cash.

### *Question 02:*

**Why apply limits on the asset classes? If have the capital available then investing 100% in equities should be allowed.**

***Answer:***

To have a diversified portfolio to optimise return at an acceptable risk level.

Asset allocation limits on investments backing insurance liabilities are intended to ensure investments are made on a sound and prudent basis, and are diversified appropriately in order to ensure policyholder benefits may be paid. The business of an insurance company is to pay claims, and not merely to generate investment returns for shareholders.

The purpose of capital adequacy is to ensure that the company will be able to meet its obligations to policyholders under adverse circumstances. A risk-based capital approach should therefore discourage an insurer from taking investment risks that would impact solvency and the ability to pay claims. The RBC formula does not actually prevent an insurer from allocating a higher percentage of their assets to equities but applies a risk charge to equities in excess of the admissible limit. If an insurer in fact has excess capital it may choose to invest it in whatever manner it wishes, provided that capital adequacy as defined under RBC is maintained.

***Question 03:***

**Concentration risk should only apply to exposure to a single stock or security**

***Answer:***

Concentration risk may arise at both the portfolio level and at the level of a single entity or investment . Single issuer limits have not been incorporated into the admissibility rules for RBC, with the exception of related party investments. However, assets admissible for solvency include both assets in the insurance fund and assets in the shareholders fund. As Determination #1 does impose single issuer limits on investments in the insurance fund, it was not deemed necessary to include additional single issuer limits in the solvency rule.

***Question 04:***

**The admissibility limits for RBC are based on asset class, not on single assets, with the exception of related party investments (which have both a class limit of 7.5% and a single exposure limit of 5%).Reinsurance: receivable due that are more than 6 months old – is this in Reinsurance Risk?**

***Answer:***

It is a deduction from TAC

***Question 05:***

**Premium liability: URR discounted**

***Answer:***

As stated in the framework, Claims Liabilities and Premium Liabilities for General Insurance may be calculated on a discounted basis where appropriate if the effect of such discounting is material. The discount rate used shall be the risk free discount rate.

***Question 06:***

**Gross Liability – are liability risk charges still applied to net liabilities?**

***Answer:***

Yes, this is covered in the section 141 & 142 of the framework, which indicate that the Net liabilities are used to calculate the liability risk charges. The market consistent balance sheet in the revised templates will also use net liabilities.

### *Question 07:*

**Does the change means insurers are restricted from investing in financial institutions, even if unrelated?**

***Answer:***

There are no additional restrictions regarding investments in unrelated financial institutions, other than the existing admissibility limits on corporate debt and equities.

As long as the Company maintain RCAR & MCR, the additional capital may be invested in above categories.

### *Question 08:*

**Premium Liability: is there "hidden capital" in the difference between UPR and URR at 75%?**

***Answer:***

The Unearned Premium Reserve (UPR) is an accounting item that approximates the unexpired risk on inforce policies and is calculated using a simple formula. The Unexpired Risk Reserve is a technical reserve that uses actuarial methods to more accurately quantify the potential future risks for policies in force. The URR is calculated using best estimate assumptions and risk margins that reflect that underlying risk characteristics of the insurance product.

The Premiums Liability for the RBC framework is defined as the maximum of the UPR and the URR at 75%, in order to take into account both the actuarial assessment of the underlying risk and the accounting provisions that are used in determining the balance sheet. In the event that UPR is much greater than the URR, then the liabilities stated in the RBC balance sheet may be more conservative than the "true" level of unexpired risk, and the corresponding impact on the capital formula would be a reduction in the TAC (and therefore CAR). This could be construed as "hidden capital" but it is essentially just a difference in the allocation of assets between policy liabilities and available capital, and should not have a material impact on the industry's level of capital adequacy. Note that the liability risk charges are calculated on the net URR, regardless of whether it is greater or less than the UPR.

***Question 09:***

**Determination of URR and CL Risk margins: URR looks to be CL + something. This is inappropriate.**

***Answer:***

The default risk margin factors for Premiums Liability and Claims Liability were calculated in order to reflect the expected levels of claim volatilities and uncertainty for the different sub-classes of insurance. They were determined based on industry benchmarks as analysed by Deloitte during the development of the quantitative model, and include some allowance for diversification. They are based on overall industry experience, however, therefore an insurer may be permitted to use an internal model calibrated to its own experience.

The difference between the URR factors and the CL factors is not a fixed percentage. The factors were determined independently.

***Question 10:***

**Any thoughts on what will be required to gain approval from IBSL for internal models?**

***Answer:***

The model should be logical and reasonable to suit the Company's own experience. IBSL may obtain third party expertise to verify the same.

***Question 11:***

**What is the basis of deciding which inadmissible assets are deducted from TAC and what inadmissible assets attract 100% capital charge? Why isn't it 100% all across?**

***Answer:***

Some inadmissible assets are considered intangible, such as good will and tax receivables. It makes sense to deduct these from TAC, since the asset would not be available to pay claims (which is what we are measuring in determining total available capital).

Some tangible assets are deducted from TAC due to the fact that they may not be recoverable and therefore again cannot be considered as available capital to pay policyholder claims. This would include assets such as claims receivables or net amounts from reinsurers more than six months.

Other types of inadmissible assets are not deducted from TAC but are given a capital risk charge of 100% instead. These would be tangible assets that can be counted as available capital but are deemed risky to hold for solvency purposes. Assets in excess of admissibility limits fall into this type: the asset class is generally admissible, but there is concentration risk if the investment allocation to the class is too high.

There are a few asset classes that could go in either category, for example, staff loans or accrued premium due past the specified period.These assets are currently assigned a 100% risk charge instead of being deducted from capital. Analysis during the road test indicated that changing the treatment for these asset types would have adverse impacts on some insurers (although positive impacts on others): it would increase the CAR, but it would decrease TAC, which could put some insurers under the minimum 500m LKR threshold. Therefore, the decision was made to retain the classification from the draft framework.

***Question 12:***

**Currently GI policy liabilities are not actuarially certified each quarter as it is not a statutory requirement. Is this going to be changed so that RBC quarterly updates will be more accurate, as liability charges too will change like investments?**

***Answer:***

Companies are required to obtain actuarial certification at least annually at present. It will not be necessary to obtain actuarial certification each quarter, but it will be necessary to revalue the liabilities using the current policies inforce. This will mean that the policy liabilities and cashflows will have to be recalculated each quarter: although the calculations do not have to be done by an actuary, they will need to be consistent with the most recent actuarial assumptions and certification. Valuation assumptions will need to be assessed and updated at least annually.

***Question 13:***

**Under the interest rate risk, it's the premium liability cash flows that had been specified in the workbook. Generally for premium liability it is the maximum of UPR and URR, and UPR is greater than URR. Therefore, how to provide UPR cash flows?**

***Answer:***

The intent of requiring liability cashflows is to recognise the fact that the Premiums Liability represents the risk of expected future claims, which will in fact result in claims and expense payments in the future (ie future cashflows).This is true regardless of whether the liability is measured as the URR or the UPR.

The cashflows for the URR can be determined by developing expected payment patterns for claims that arise in the future, which will include assumptions regarding the timing of future claims events as well as the payments for those claims. Assumptions for these claim payment patterns can and should be based on the insurer's claims experience, much the same as cashflows for IBNR are developed.

In the event that the UPR is used as the Premiums Liability because it is greater than the URR at 75%, the expected cashflow patterns for the URR liabilities can be applied to the UPR amount to derive reasonable liability cashflows in order to determine the interest rate risk charge.

***Question 14:***

**Reinsurance risk capital charges takes into account claims recoverable. Does this have to be segregated as outstanding for more than 6 months and under 6 months where the first one is considered inadmissible? Should this be outstanding from date of invoice instead of date of loss?**

***Answer:***

Yes it has to be segregated.

We believe that the determination of outstanding should be from the date of loss not the date of invoice.

***Question 15:***

**The default risk margins prescribed in the framework (Figure 4) – how frequently will it change?**

***Answer:***

Will be based on the future market requirements

***Question 16:***

**Isn't it a risk to rate NITF with a 0% credit risk rating?**

***Answer:***

NITF currently considers NITF as sovereign risk

***Question 17:***

**For an insurer to meet the solvency requirements, the insurer must meet both of the following criteria: RCAR above 120%, and MCR LKR 500m. It appears that these requirements still penalise small, but financially strong insurers (i.e. insurers which meets the RCAR above 120% but are unable to meet MCR requirement due to low capitalisation). What is the current view on this matter and its impact on such insurers, e.g., will the insurer need to source for additional capital?**

***Answer:***

Yes if it is necessary, smaller insurers will need to raise additional capital to meet the minimum MCR.