

# IAA PAPER

## *FUTURE INVESTMENT MARGINS*

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The preliminary views of the Steering Committee in its Insurance Issues Paper (the IASC Paper) indicate that there has been significant disagreement within the Steering Committee as to whether to reflect expected investment margins in estimates of future cash flows related to the valuation of the liability of insurance contracts. The objective of this paper is to further explore this issue.

We believe that in order to satisfy the objectives set forth in the IASC Framework, any accounting system should utilize a prospective measurement approach, reflecting expected cash flows from all related sources, together with appropriate risk adjustments consistent with market realities. To determine whether future investment margins should be reflected in the present values of these cash flows, it is necessary to explore a number of issues.

Since recognition of future investment margins affects a number of other financial instruments, it would be appropriate, if possible, to arrive at a consistent approach for all financial instruments. We believe if a decision is made to treat these margins differently between financial instruments, it should be based on significant differences between them.

### **What are investment margins?**

An investment margin consists of the difference between a set of investment earnings and any corresponding interest payments. In the IAA's formulation of the fair value of liabilities, the set of investment earnings is derived from the replicating portfolio. The replicating portfolio is that set of assets whose expected cash flows match, to the extent possible, the characteristics of the liabilities being valued, on a default-free basis. In the special case of insurance contracts whose liability is a direct function of a specific set of assets (as described in the IAA's comments regarding the IASC Paper's Basic Issue 5, including unit-linked (variable) contracts, participating, and index-linked products), the replicating portfolio is defined to be that of the actual set of assets held.

In a fair value based system, measurement of investment margins for the purpose of determining the value of the liability of insurance contracts should reflect the difference between applicable replicating portfolio rates and corresponding interest credits. In the special case mentioned above, the replicating rate(s) is equal to the corresponding actual interest rates.

Since the IAA believes that the determination of the liability should reflect a prospective view by reflecting the present value of all expected future cash flows, it is necessary to address how to treat such future investment margins. Such margins could be viewed in two ways – (1) as cash flows (replicating portfolio rate minus crediting rate, if any) or (2) through discounting future cash flows at the expected replicating portfolio rate(s).

The issue addressed in this paper is whether these future investment margins should be reflected in the determination of the liability associated with insurance contracts. Closely related is the broader question of whether such margins should be reflected in other

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financial instruments or financial contracts, as it also is the belief of the IAA that similar products should be measured in a consistent manner. It is the position of the IAA that they should be reflected in all such contracts. The following is presented describing the reasoning for this position.

It will be useful to refer to the following three cases:

1. Term insurance (life, health or property/casualty). Since there is no explicit interest credited (except implicitly in setting premium rates for the contracts), the entire expected earned interest at the replicating portfolio rate(s) would constitute the expected future investment margins. Not reflecting this margin would imply that these liabilities would be measured at undiscounted values. Conversely, if it were, then the future liability would reflect expected future investment margins. Since not discounting such liability does not make any sense, it is clear that future investment margins should be reflected in the liability of insurance contracts. Note that liabilities for outstanding claims fall into this category.
2. Whole life insurance. Future investment margins consist of the present value of all expected future cash flows (adjusted for risk) generated as a result of the insurance contract. The liability would reflect the present value at the replicating portfolio rate(s) of the expected credited rate.
3. Endowment with profit sharing (the same result would occur for unit-linked product). According to the IAA papers entitled “INSURANCE LIABILITIES – VALUATION AND CAPITAL REQUIREMENTS, GENERAL REVIEW OF A POSSIBLE APPROACH” and “VALUATION OF RISK ADJUSTED CASH FLOWS AND THE SETTING OF DISCOUNT RATES – THEORY AND PRACTICE”, all future cash flows (premiums, benefits and expenses) should be projected reflecting appropriate risk adjustments. The cash flows in this example are interest-sensitive, with the profit-sharing formula reflecting a 150 basis point margin (in this simplified case, expenses will be ignored). Assume that the outcome of this process is that the earned rate of the replicating portfolio is a default-free rate (after adjustment for expected asset defaults and investment expenses) of 7.5%. Consistent with the 150 basis point formula margin, the expected crediting rate would be set at 6.0%. The expected future cash flows (including the crediting rate of 6.0%) would then be discounted at the replicating portfolio rate at 7.5%, with a corresponding profit at issue of corresponding to this 1.5% margin. Those who believe that no investment margin should be reflected would use a discount rate of 6.0%, which would result in a larger liability and break-even (assuming all other sources of margin after adjustment for risk was break-even).

Deviations of actual investment return from that generated by the replicating portfolio would be recognized as a profit or loss as they are earned.

Those opposed to reflection of expected margins have expressed the view that such margins are generated as a result of an intangible asset. To evaluate this assertion, it is

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useful to examine applicable IASC definitions. The IAS definition of an asset is "a resource: (a) controlled by an enterprise as a result of past events; and (b) from which future economic benefits are expected to flow to the enterprise". An intangible asset is "an identifiable non-monetary asset without physical substance held for use in the production or supply of goods or services, for rental to others, or for administrative purposes." (IAS 38) Those opposed could also be confusing the expected earned investment earnings from the actual asset portfolio from that from the replicating portfolio.

The whole area of self-created intangible assets has proven quite difficult and contentious in accounting. If the expected value of investment margins were determined to be an intangible asset, according to the IASC Framework they would not be reflected in a balance sheet.

#### **Alternative views**

Part of the difference in opinion regarding this issue may result from views regarding the object of the fair valuation. Possible approaches that have been raised include the following:

1. Investment returns are part of an observed price, the price a willing party would be willing to pay. Ignoring the actual price of transactions would elevate modeled valuations over observed values. In some cases, although perhaps not in some insurance contracts, the components of such prices cannot be easily isolated or observed on a with-and-without price basis. In such cases, whatever your philosophical position, the most reliable source in a fair value treatment is the observed price, whether or not it includes elements that are a part of the financial instrument.
2. Investment returns are an asset. If not, no one would "pay" for them in a purchase. They are not, however, a part of the financial instrument; rather they become an intangible asset only when purchased.
3. Investment returns are an asset, albeit intangible rather than financial. They can be measured as a by-product of the measurement of the value of the applicable financial instrument. Given that ability, they should be recognized, as well as others with similar characteristics.
4. Investment returns are neither an asset nor a financial instrument. Some believe that they fail the "control" element of the definition of assets. Allowing their recognition could result in the recognition of all sorts of purported assets and sacrifice discipline over what is recognized in financial statements. Some have extended this argument to support the cash-value floor in a fair value context (this latter argument won't be addressed in this paper).

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In summary, some see investment margins as a separate asset, some see them as components of a single asset and others see them as a component of a single asset that cannot practically or usefully be split into components. Some feel that they are not assets at all, or if assets they fail the asset recognition criteria because they cannot be measured reliably. The most appropriate approach for many insurance contracts would be to recognize them as part of the liability.

#### **Summary of arguments in favor**

The IAA believes that it is appropriate to reflect future investment margins for a number of reasons that can be summarized as follows:

1. Any prospective approach should reflect all future expected cash flows associated with a financial instrument such as an insurance contract, however generated.
2. The discount rate should be based on a portfolio of assets whose expected cash flows closely match the expected liability cash flows. Using another discount rate (e.g., the crediting rate) would result in inconsistencies in the valuation of the insurance contract. Appropriate risk adjustments should be reflected in any case, although in some cases most of the investment risk is passed to contract-owners. Such investment margins could be either positive or negative.
3. For unit-linked (variable) contracts (case 3 described above), asset management charges reflect expected investment margins. These charges reflect explicit charges for the asset management function, similar to the implicit charges in non unit-linked products. Even in this case a risk adjustment may still be appropriate if fees are expressed in terms of a percentage of the investment return, although most of the investment risk is typically passed to contract-owners. The right to such margins in such contracts is clear.
4. Entry prices or values, although not the basis for fair values, reflect such margins. The market place clearly demonstrates this fact. In addition and particularly relevant to a system based on exit prices or values, in any exchange the forgone margins would always be reflected in any purchase price. Willing purchasers of the business reflect such expected margins in any purchase price. This is recognized in the reinsurance and securitization markets. Certain purchasers may believe that they can earn a rate higher than the replicating portfolio rate; this difference could result in a purchase price less than the value of the liabilities.
5. In practice, expected margins are sometimes expressed in terms that are not consistent with expected costs. For example, expected mortality margins may be expressed as a percentage of assets and visa versa. This illustrates that all future expected cash flows are significant and are sometimes difficult to separate. If the margins were reflected in a manner consistent with the contract and all margins other than investment margins are reflected, illogical results may occur that could bear little relation with an exit price. If all margins were included in the premium rates (i.e., the

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credited rate would then equal the “earned” rate), the difference would be recognized as profit at issue, in a manner similar to the approach described here. Most importantly, all expected cash flows should be recognized, independent of their source and how they may be expressed.

6. The insurance contract incorporates the right to earn all margins, including the investment margins, through the timing differences between receipt of premium and payment of benefits, as well as investment charges or ability to change credit rates. These margins are included in the price the contract-owner has to pay for continued access to the insurance pool, a significant feature of many insurance contracts. Any limits to such rights should be reflected (e.g., as a result of competitive crediting rates). Nevertheless, some believe that insurers are not given such a right by contract to earn such margins. Even if this were the case, their effect cannot be distinguished from a financial perspective from the contractual right to earn mortality or morbidity margins, or a profit for that matter. Risk is appropriately reflected in market value margins and should not be used to justify non-recognition of any margin that reflects such risk, including future investment margins. All types of contract charges and credits should be recognized in a consistent manner. In summary, all expected cash flows generated from an insurance contract should be consistently recognized.
7. They are part of an unbundleable combination of assets and liabilities. This argument follows from the view that insurance contracts should not be unbundled.
8. For contracts with no interest credits, not to reflect expected future investment margins (based on the replicating portfolio) would result in the use of undiscounted values. The IAA has not heard of any arguments in favor of taking such an undiscounted approach. We have not identified a reason that the introduction of credited interest should affect recognition of future investment margins.
9. For non-participating investment-centric long-term products such as single premium immediate annuity or life insurance contracts, structured settlements, and GICs (there appears to exist a competitive direct market for some of these contracts; where such markets exist, transaction prices may supercede or supplement the use of present value models to ascertain their values), the lack of reflection of future investment margins will result in large losses at issue. The use of reinsurance might mitigate this problem, but only to the extent that the reinsurance industry has surplus capacity. Alternatively, insurers could significantly increase their prices for such products, but it is difficult to see how that could be in the public interest. This result that is inconsistent with s from the long-term nature of many insurance products, compared to the shorter-term nature of many other financial instruments.

None of the advantages given suggest that the entire expected margin should be reflected in the measurement of the value of liabilities, as uncertainty exists for non-unit-linked contracts as to whether the total expected margins will materialize. Thus, appropriate levels of market value margins or adjustments for risk and uncertainty should be

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included. In fact, expected investment margins could well be negative (see older Japanese life insurance contracts).

In summary, such expected margins are an integral part of the expected future performance of many life insurance and annuity contracts, recognized by both exit and entry prices. To ignore such margins would be inconsistent with the concept underlying fair values and in the case of insurance contracts without credited interest, would appear to be inconsistent with present values.

#### **Summary of arguments against**

Although the arguments against recognition have been mentioned above, the following presents a summary of them.

1. Future interest margins are generated from an internally generated intangible and not inherently provided for by the contract. Since it is not appropriate to reflect intangible assets, it is also not appropriate to reflect these in the value of insurance liabilities.
2. Future mortality margins are included because the contract requires that the insurer make payments for death benefits. Future premiums are reflected because the contract obligates the insurer to accept those premiums, and continue the contract as long as the policyholder makes payments. In each case, the contract is the nexus. In contrast, future investment returns are not cash flows dictated by the contract – the financial instrument that is what is being measured.
3. The IASC and other standard setters place great emphasis on identifying items that meet what are through to be rigorous definitions of assets and liabilities. Future investment margins fail the “control” issue necessary to be reflected as an asset. If it doesn’t qualify as an asset, then it also should not be reflected as a contra-liability either.
4. If future investment margins are permitted in insurance, it will be impossible to deny similar treatment to reflect future profits in similar situations, primarily generated from intangibles. Accounting valuation of similar products will likely to be quite differently unless the accounting rules for intangibles are modified significantly, e.g., for demand deposits.

#### **What is this replicating portfolio interest rate anyway?**

No matter what the insurance product, it is clear from an observation of market prices that investment margins are reflected in both exit and entry prices. The relevant questions are (1) whether a part of that price or margin should be excluded from recognition and (2) what the margin that is measured should consist of. The first question is addressed earlier.

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The second has been addressed in other IAA papers, including “INSURANCE LIABILITIES - VALUATION & CAPITAL REQUIREMENTS, GENERAL OVERVIEW OF A POSSIBLE APPROACH”. The aspect briefly covered here is the appropriate basis for a replicating portfolio, used as the basis for discount rates in the approach described in this paper. If the obligation is not directly based on a given set of assets, the replicating assets should be represent relatively low-default risk assets. However, they should not necessarily be as low as government fixed income securities of the corresponding maturities.

One example of observable market prices can be seen by looking at the Wall Street Journal’s industry average rates for various durations of Guaranteed Investment Contracts (GICs) in the U.S. For example, the April 14 one shows 2 year GICs at .85% over U.S. Treasuries, 3 year at 1.01% over, and 4 and 5 at higher spreads. Although GICs may not qualify as insurance contracts, this example illustrates that such margins are included in the price a contract-owner has to pay for access to this market. Reflecting these industry average rates, an immediate loss of about 3% for issuance of three year GICs would result if cash flows were generated by U.S. Treasury rates. The industry is thus quite confident that they can earn substantially above Treasury rates. It thus seems inappropriate to use government rates for such products in which the difference is so obvious. Similarly, it is appropriate if not higher differentials may be appropriate to reflect market prices for insurance products that are currently not as transparent and price sensitive. The replicating portfolio does not automatically result in the use of Treasury rates for discounting; rather something similar to a relatively high grade corporate bond rate (or rates from the assets that closely match the liabilities) expressed on a default free basis.

The use of a rate above Treasuries does not violate sound economic theory and does not imply an inefficient market. For a number of reasons having nothing to do with risk in the normal sense, U.S. Treasuries (and most other government securities) are priced at premium levels. In short, using Treasury rates (or swap rates) to value liabilities and actual market value to value assets places a higher value on liabilities than exit values would indicate and generates an unreasonable and unstable earnings pattern due to an inconsistency of asset and liability valuation.

It is thus appropriate to use a market-based discount rate incorporating investment margins to value liabilities. This is consistent with the view that entity-specific assets should not be used to value insurance contract liabilities; rather, rates more representative of actual corporate debt marketplace (where available in a country) should be used.

#### **Summary and IAA position**

The IAA encourages the IASC to recognized expected margins, including investment margins, in a consistent manner. Arguments in support of this position is the inclusion of such margins in entry and exit prices of insurance contracts, the prospective view of future cash flows, and the necessity to recognize these margins in a case with no interest rate being credited. In applying present value models in the measurement of insurance

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liabilities based on risk adjusted cash flows in a fair value environment, the discount rate applied should be the equivalent of the replicating portfolio rate. To do otherwise would result in internal inconsistencies.

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