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Project **Insurance Contracts**

Topic **Subsequent release of residual and composite margins**

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### **Purpose of this paper**

1. At the July joint Board meeting, the boards discussed the measurement approach for insurance contracts and they were unable to reach a common measurement approach. The FASB continued to support a current fulfilment value approach with a composite margin but no explicit risk margin. The IASB kept under consideration both that fulfilment value approach and the updated IAS 37 approach.
2. Because both boards reached a decision that at contract inception there will be no-day one gains, both measurement approaches contain an amount that represents the difference between the premium received and a current measurement approach (for contracts that are not onerous on day one). In this paper, the staff discusses the subsequent accounting for that difference.
3. Appendix A to this paper provides examples of the accounting for margins for short-duration contracts (including insight into how the measurement of an insurance contract works with revenue recognition). Those examples are simplistic and designed to provide a basis for comparing the different approaches for the release of the residual and composite margins. The staff anticipates providing examples of other types of insurance contracts in the near future to assist the Boards in understanding how the respective approaches to measurement could be applied to different insurance contracts.

### **Summary of staff recommendations**

4. (FASB only) The insurer should recognise a day-one loss in profit or loss if the initial measurement of an insurance contract results in a day-one loss. (The IASB has already tentatively reached this conclusion.)

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5. Some staff members believe that the driver selected for release of residual and composite margins should result in recognising those margins in income in a systematic way that best depicts the insurer's performance under the contract. Other staff members believe that the driver in all cases should be the release from risk.
6. Regarding the period over which to release these margins:
  - (a) If the boards select a measurement that includes a separate risk margin, the residual margin should be released over the coverage period because the risk margin under that approach is intended to capture the risk associated with the claims handling period.
  - (b) If the boards decide that the measurement for insurance contracts should include only a composite margin, the composite margin should be released over a period that includes the claims handling period because the period used should reflect the risk associated with the settlement of claims.
7. Regarding changes in estimates:
  - (a) If the boards believe that a current measurement is integral to understanding and reporting insurance contracts, they should select an approach that reports all changes in estimates in profit or loss (or other comprehensive income).
  - (b) If the boards believe that the guidance in revenue recognition is integral to all components of the insurance liability, then they should select an approach that recognises changes in estimates of financial market variables in profit or loss (or other comprehensive income, a subject for future discussion) but adjusts the remaining residual or composite margin (if any) for all other changes in estimates, provided that this margin does not become negative.

### Structure of the paper

8. The rest of this paper is divided into the following sections:

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- (a) Treatment of the residual and composite margins (paragraphs 10 to 11)
  - (b) Initial recognition of the margins—day-one loss (paragraphs 12 to 15)
  - (c) Subsequent release of the margins (paragraphs 16 to 28)
    - (i) Basis for release (paragraphs 17 to 25)
    - (ii) Period over which the margins are released (paragraphs 26 to 28)
  - (d) What is the relationship between the residual and composite margins and subsequent changes in estimates? (paragraphs 29 to 35)
9. This paper does not discuss:
- (a) Detailed guidance on estimating and releasing a separate risk margin (if any).
  - (b) Implicit release of margins under an unearned premium approach.
  - (c) Whether the insurance liability should be split into separate performance obligations. The revenue recognition team intends to discuss the identification of separate performance obligations in more detail at a future meeting.
  - (d) Whether an insurer should account for insurance contracts as a single (net) asset or liability, or account for future cash outflows as a liability and future cash inflows as an asset.

### **Residual and composite margins**

10. Both the updated IAS 37 and the fulfilment value exclude day-one gains from being recognised in profit or loss at inception. To achieve this, the measurement of the liability at inception includes the difference (if any) on day one between:

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- (a) the expected present value of premiums (IASB: premium less premium recognised at inception to cover incremental acquisition costs); and
  - (b) a prospective measurement of the obligation, as follows:
    - (i) (IASB: in the case of the updated IAS 37 approach) the expected present value of the future cash outflows plus the risk (and possibly service) margin that flow from the amount the insurer would rationally pay to be relieved of the obligation; or
    - (ii) (in the case of the current fulfilment approach) the expected present value of the future cash outflows included in the current fulfilment value.
11. As in previous discussion, the staff uses **residual** margin as a working title for the difference between paragraph 10(a) and 10(b)(i) above. The working title for the difference between paragraph 10(a) and 10(b)(ii) is **composite** margin. The staff selected these terms to assist in distinguishing the two types of margin in this paper. The staff does not necessarily expect to use these particular terms in the exposure draft.

### Initial recognition – day-one loss

12. Paragraph 10 states that a residual or composite margin should be recognised initially as the difference between the premium (IASB: premium less incremental acquisition costs) and the cash outflows plus separately identified margins (if any) included in the current measure the Boards select. However, a premium may not be sufficient to cover the prospective measurement of the obligation. In that case, the day-one differences will be negative; that is, the amount described in paragraph 10(a) will be lower than the amount described in paragraph 10(b).
13. Both the updated IAS 37 and fulfilment value measurement approaches may recognise such a negative day-one difference (day-one loss) in profit or loss. That is consistent with the onerous contract test in the discussion paper on revenue recognition (but the magnitude of the loss for those two approaches may be different because the updated IAS 37 model includes a

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separate risk (and possibly) service margin and a current fulfilment value does not).

14. At its April 2009 meeting, the IASB confirmed that an insurer should recognise a day-one loss in profit or loss. The FASB has not discussed this issue yet.

### **Staff recommendation**

15. The staff recommends that the insurer recognise that day-one loss in profit or loss if the initial measurement of an insurance contract results in a day-one loss.

#### **Question for the FASB**

Do you agree that a day-one, if any, loss should be recognized in profit or loss?

### **Subsequent release of the residual and composite margins to the income statement**

16. The residual and composite margins will be released to income at subsequent reporting dates. Residual and composite margins are an aggregation of the remaining components (that are not separately identified for measurement) of the difference between (a) the premium (IASB: premium less incremental acquisition costs)<sup>1</sup> and (b) cash outflows plus separately identified margins (if any). Because the residual and composite margins are an aggregation of various components (not identified separately), the two significant questions are:
  - (a) What is the basis for releasing these margins?
  - (b) Over what period should an insurer release these margins?

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<sup>1</sup> This paper does not discuss renewal premiums.

**Basis for release**

17. Arguably, the subsequent release of residual and composite margins is an allocation of the residual or composite margin determined at inception. It seems natural to look for a release (allocation) that best reflects the dominant characteristics of these margins. Such a basis, in our view, would also coincide with recognising a residual and composite margin based on a pattern that resembles how an entity transfers a good or a service to the customer (that is, performance under the contract, as applied by the boards' proposed approach to revenue recognition).
18. Possible drivers for releasing the margins in a pattern that appropriately depicts performance under the contract include, but are not necessarily limited to:
  - (a) Release from risk
  - (b) Funds under management
  - (c) Expected benefit and claim payments
  - (d) Premium receipts
  - (e) Passage of time
  - (f) A mix of two or more drivers
19. Approach (a) release from risk should consider different notions. One is the traditional notion of bearing the risk of insured events that occur during the coverage period. The other is the period over which the insurer is exposed to the risk that the ultimate outcome may differ from the expected outcome.
20. Basing the release of the margins on (e) the passage of time could provide a more observable and cost-beneficial approximation for release from risk. While an assertion could be made that risk is a predominant component of the composite margin, it may not be in all instances. Therefore, releasing the margins based on the release from risk may produce skewed results if risk is not the predominant driver. Also, basing the release of the margins on the passage of time will not reflect uneven insurance risks, nor will it reflect changes over time in the probability that that options and guarantees

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may come into the money (many insurance contracts contain significant options and guarantees).

21. An approach based on (b) funds under management may be an appropriate driver if the insurance contract contains a significant investment component.
22. However, residual and composite margins are blends and identifying a driver related to one dominant component may be challenging and differ from case to case. For example, for a composite margin, risk is likely to be a dominant component. Therefore, the release from risk may be the most appropriate driver. In the case of a residual margin, a risk component is not relevant because that component is already included as a separate margin. Consequently, selecting the release from risk as the driver may not be appropriate for a residual margin. Other drivers like funds under management, expected premium receipts or claim payments could provide a better basis (but if no other driver is available, perhaps release from risk could be used).
23. As a way forward, the boards could select:
  - (a) An approach that gives detailed guidance, perhaps even prescribes, a particular driver for releasing the margin. This driver could depend on other features of the measurement approach, for example, whether the measurement has a separate risk margin or not. For example:
    - (i) For a measurement approach based on fulfilment value, an argument can be made that a significant component of the composite margin is risk. Therefore, release from risk may be an appropriate driver for the release of the composite margin.
    - (ii) For the updated IAS 37 measurement approach, a separate risk margin (and possibly a service margin) is identified. Therefore, a separate risk margin is part of the current measure and will already be released based on the release from risk. Consequently, other

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drivers like funds under management or claim payments should be used.

- (b) Apply a more principles-based approach where the insurer must determine what the driver or drivers are for the particular insurance contract. For some contracts, the main driver may be protection (generally short-duration contracts). For more investment-oriented contracts, the liability carrying amount may be a more significant driver (similar to funds under management). For other insurance contracts, a blend of drivers may be appropriate.
24. Providing detailed guidance reduces the ambiguity surrounding the intent of the boards and provides a degree of comparability among reporting entities. However, bright lines in accounting guidance limit judgment and will always be somewhat arbitrary. Using a principles-based approach allows for judgment but may lead to the need for implementation guidance in the future if the intent of the boards is not appropriately applied.

### **Staff recommendation**

25. Some staff members recommend that the basis for recognising the residual and composite margin should reflect the characteristics of that margin. Those staff members also recommend that the exposure draft should not prescribe particular drivers; rather, the insurer should select the driver(s) that result(s) in recognising that margin in income in a systematic way that best depicts the insurer's performance under the contract. Other staff members believe that the driver in all cases should be the release from risk to provide some rigor in the release of the residual and composite margins.

#### **Question for the Boards**

Which approach should the boards select for the release of residual and composite margins?

- (a) The boards should not prescribe particular drivers; rather, the insurer should select the driver(s) that result(s) in recognising that margin in income in a systematic way that best depicts the insurer's performance under the contract.
- (b) An insurer should use release from risk as the driver in all cases.



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If you do not support either approach, which approach would you select for the release of residual and composite margins and why?

### ***Period over which the residual and composite margins are released***

26. The staff believes that there are three possible views regarding the period over which the residual or composite margins exist (that is, the insurer performs):
- (a) limited to the coverage period. The coverage period is the period during which the contract is in force (the period during which protection is provided). For example, the coverage period for an annual contract is one year. The coverage period in most cases provides an easily observable time period over which to release the margin because most insurance contracts stipulate the coverage period.
  - (b) the claims handling period. The claims handling period is the period from when the first claim arises to when the last claim is paid (the claims handling period includes most if not all of the coverage period). In some instances, the coverage period and the claims handling period are not significantly different (such as for traditional life insurance). In other instances, particularly for some non-life contracts, the coverage period may be 1 year but the claims handling period can be 10 years or more.
  - (c) some variation based on the coverage and claims handling periods.
27. The staff identified two views:
- (a) Some could argue that using the coverage period might not reflect the fact that the performance under an insurance contract often extends well beyond that period. As a result, the claims handling period provides a more complete reflection of the obligation created by the insurance contract than the coverage period because the entity is contractually required to settle the claim

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regardless of the amount of time it requires making the final payment. The obligation will be settled only when the entity pays the last claim. Therefore, some believe that releasing the residual and composite margins over the coverage period improperly accelerates the recognition of those margins.

- (b) Others might argue that the insurer provides **all** policyholders with an asset during the coverage period (the right to insurance protection). During the coverage period, the insurer incurs claims from **some** of the policyholders. At the end of the coverage period, the insurer may not have paid out all of those claims. Those who support this view might argue that it would not be useful to allocate a margin component that flows from **all** the policyholders to a remaining claims liability for **some** of those policyholders. The fact that the insurer is not fully released from the obligation could be dealt with by reflecting the uncertainty in the measurement of the remaining claims liability by including a risk margin and possibly a service margin (or maybe even a separate performance obligation for the claims handling period). Under this approach an insurer would still report income during the claims handling period as a result of the release of risk and service margins.

### **Staff recommendation**

- 28. The bases described in paragraph 27 can be summarized into the following two positions:
  - (a) If the boards select a measurement that includes a separate risk margin, the residual margin should be released over the coverage period because the risk margin under that approach is intended to capture the risk associated with the claims handling period.
  - (b) If the boards decide that the measurement for insurance contracts include only a composite margin, the composite margin should be released over a period that includes the claims handling because

the period used should reflect the risk associated with the settlement of claims.

**Question for the Boards**

What period should be used for release of the residual and composite margins?

**What is the relationship between the residual and composite margins and subsequent changes in estimates?**

29. The relationship between the residual and composite margins and subsequent changes in estimates is a question about whether the margin should be impacted by changes in the measurement of the insurance contract. Consider the following simplified example:

Insurer A enters into an insurance contract on January 1, 2010. For simplicity, we ignore risk so it is not relevant whether the measurement includes a separate risk margin. As a result, the residual and composite margins will be the same; this normally would not be the case.

The premium is CU100 and is received at inception. The initial expected present value of the claims is CU80. As a result, the residual and composite margins at inception are CU20.

Suppose that on January 2, 2010, the insurer's expected cash outflows increase from CU80 to CU 90. For simplicity, we ignore any amounts the insurer would release to the income statement from January 1 and 2.

30. From this example, the staff believes that there are three potential approaches to address the subsequent changes in the residual and composite margins:
- (a) **Approach A:** The margin remains locked-in at the amount determined at inception and is released over the remaining period of the contract. This means that the liability at January 2 is CU110, consisting of expected cash flows of CU90 plus a margin of CU20. The changes in cash flows of CU10 are recorded as an expense in the income statement. Variability in cash flows is a significant inherent characteristic of the contract. At each subsequent measurement date, the performance statement reports changes in estimates promptly and transparently. Those changes are not absorbed by the remaining residual or composite margin

and subsequent changes in estimates are reported in profit or loss as they occur.

- (b) **Approach B:** The margin is adjusted for the changes in cash flows. The liability at January 2 is CU100, with expected cash flows of CU90 and a margin of CU10. Consequently, no expense is recognised in the income statement. The measurement of an insurance contract consists of two components: the updated IAS 37 approach or fulfilment value approach and the residual or composite margin, respectively. The objective is to measure the overall margin that the insurer expects to earn based on current expectations. If the updated IAS 37 approach or fulfilment value approach changes, the value of any residual or composite margins must change accordingly, unless those margins would become negative. As a result, residual and composite margins should be adjusted for changes in estimates at each subsequent reporting date; that is, by adjusting the remaining margin for subsequent changes in estimates rather than recognising those changes in profit or loss. Changes in estimates therefore will be reflected in the release of smaller margins in future reporting periods, not in the current year's profit or loss (unless a residual or composite margin would become negative). Similarly, if changes in estimates result in a decrease in the expected cash flows, the margins would be increased with no impact to profit or loss.
- (c) **Approach C:** The margin is updated subsequently as a fixed proportion of the expected cash flows, determined at inception. This results in a liability on January 2 of CU112.5, consisting of cash flows of CU90 and a margin of CU 22.5 (CU90\* CU20/CU80). The income statement shows an expense of CU12.5. This approach in effect remeasures the residual or composite margin in proportion to the premium. However, the staff does not believe that remeasuring a margin that is an aggregation of components is useful. Furthermore, under this approach, the total residual and composite margins on January 2 end up at an amount that is higher than implied by the actual premium at inception. The staff finds it difficult to argue why a component of the margin that aims at eliminating day-one profit and allocating that amount over the life of the contract should be updated subsequently in such a way. Accordingly, no further analysis is provided for Approach C.
31. Approach A has the benefit of reflecting changes in the estimates of the underlying cash flows immediately in profit and loss. The immediate

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recognition of these changes provides information to users about changes in those estimates. Proponents of Approach A believe that it is more consistent with a current measurement approach. These proponents also point out that usefulness of that information could be enhanced by presenting changes in estimates as separate items in profit or loss. Proponents of Approach B note that Approach A may result in an insurer recognizing income or expense in one period only to reverse it in a subsequent period; in their view, this is not a fair depiction of the margin the insurer earns over the life of the contract.

32. Some may point out that Approach B is more consistent with the allocated transaction price approach proposed for revenue recognition. Proponents of Approach B also point out that reporting changes in estimates and the impact those changes have on margins could be achieved through disclosure; for example, by disclosing period-to-period changes in the margin. However, opponents of Approach B may note that the margin in effect absorbs negative changes in the expected cash outflows and may therefore conceal an insurance contract that may become onerous or a portfolio of insurance contracts that are onerous in the near future. Accordingly, these opponents believe that information is lost if negative changes are absorbed; in this respect, a disclosure about changes in circumstances is not an adequate substitute for reporting those changes in profit or loss.
33. Most respondents to the discussion paper on insurance contracts, including those who support Approach B, agreed that changes in financial market variables should be reported in profit or loss or, in some cases, in other comprehensive income. Changes in financial market variables typically also affect the carrying amount of assets backing the insurance liabilities if those assets are measured at fair value. Therefore, when changes in financial market variables affect insurance liabilities, not recognising those changes would result in an accounting mismatch if the assets are measured at fair value.
34. Approach B would therefore only adjust the residual and composite margins for subsequent changes in estimates of other than financial market variables.

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This typically would relate to changes in non-market variables like mortality, lapses, expenses, frequency, severity, and, if explicitly measured, the risk. (Approach A by definition reports all changes in estimates in profit or loss or other comprehensive income).

### **Staff recommendation**

35. The arguments for and against the approaches A and B described in paragraphs 31 through 34 can be summarized into the following two positions:
- (a) If the boards believe that a current measurement is integral to understanding and reporting insurance contracts, they should select an approach that reports all changes in estimates in profit or loss (or other comprehensive income) (Approach A).
  - (b) If the boards believe that the guidance in revenue recognition is integral to all components of the insurance liability, then they should select an approach that recognises changes in estimates of financial market variables in profit or loss (or other comprehensive income, a subject for future discussion) but adjusts the remaining residual or composite margin (if any) for all other changes in estimates, provided that this margin does not become negative (Approach B).

#### **Question for the Boards**

Which approach (Approach A or Approach B) should be applied when there are changes in estimates?

# Appendix A

## Overview

1. This Appendix includes five simple nonlife (property and liability) examples (Cases) based on a prospective model that uses explicit building blocks. The presentation in the performance statement is based on a ‘premiums and claims’ approach. The main purpose of the examples is to support the discussion in this paper about the subsequent release of composite/residual margins.
2. The examples are highly simplified and use only a few basic assumptions to keep the Cases understandable and allow the reader to focus on a few key points in each Case. Since the same Base Case is the foundation for all five cases, comparisons of the impact of alternatives is facilitated.
3. Although a prospective building block approach is used, the examples (and generally the results) are quite similar to those that would result from an unearned premium approach as recently adopted by the IASB for nonlife short duration contracts and soon to be discussed by the FASB. Since various components of the summary balance sheet and the income statement are detailed in the examples, the format can easily be used for constructing various scenario and presentation formats.

## Background

4. The assumptions for each of the five Cases are listed at the top of each of the Cases. The insurance contract used in the examples is a standard annual auto contract—more specifically 5,000 auto contracts each with an annual premium of \$1,000, all written at the beginning of the year. The assumptions used are intended to demonstrate the accounting issues related to the contracts—they are not intended to be representative of actual contracts or the results of a book of business. In other words, the information used is hypothetical although the staff believes it is not unrepresentative of a group of insurance contracts. Not included

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in the examples are the effects of inflation and the use of discounting for insurance liabilities. The periods covered in each of the cases are the four quarters of the first year and the subsequent four years (to allow time for the runoff of what is assumed to be a short tail book of business).

## The Cases

5. Case 1, the Base Case, is a straight forward nonlife insurance example. The similarity between the revenue recognition and the unearned premium approach is readily apparent. Simply substitute the words unearned premium for performance obligation in Case 1 and the transition is nearly complete—both terms refer to accounting elements that represent customer consideration and both are stand-ready obligations and would operate in a similar fashion for many short-duration nonlife insurance contracts.
6. Case 2 shows the Base Case adjusted for an increase in the expected combined ratio for the book of auto contracts for the second half of the year. In this case the composite/residual margin is adjusted at midyear when the expected increase for the second half of the year is discerned and reflected in the expected cash flows. The example shows the impact of this approach on the quarterly results for the year—i.e., the increase in the loss ratio is recognized when the actual losses are reported in the income statement for the second half of the year.
7. Case 3 uses the same facts as Case 2 but adjusts at midyear for the expected change in the loss ratio. In this case, the impact is reported in profit or loss in the second quarter and the third and fourth quarters are reported as though the original assumptions were in effect for the entire year.
8. Case 4 again builds on Case 1 and shows an approach based on one performance obligation with the margin split into a risk margin and a residual margin. As a simplification, the Case assumes that this margin is reduced over both the coverage period and claims handling period evenly. As a result, the margin is



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- released evenly over the life of the contract. Again, the amounts used in this Case are for illustrative purposes only. A remeasurement of the risk margin is not illustrated. We note that in addition to a risk margin, or instead of a risk margin, a separate margin for other services (a service margin) could be identified, depending on the requirements of the measurement approach.
9. Case 5 explores an approach that uses two performance obligations to distinguish two insurance company functions that cover different but overlapping periods—the protection function and the claims handling function. The protection function is generally associated with the contract coverage period—i.e., the period for which the policyholder is insured. The claims handling function works on settling and paying claims—a function of interest to the policyholder but also an important function of a well run insurance entity. The claims handling function starts as claims arise (which could be soon after the inception of the insurance contract) and extends through the payment of the last claim for the book of business. The base case has been altered to split the claims and claims handling cash flow out into two components to provide an underlying claims handling cash flow out that covers the entire contract life. The identification and separation of the claims handling cash flows and the amount of the related margin in this Case are only for the purposes of this illustration. Also, this case uses a straight line amortization of the claims handling margin for the reporting periods covered, but the amortization could be, for example, weighted for the volume of expected paid claims or another relevant metric.
  10. The staff understands that the Boards have not discussed the use of more than one performance obligation in a service contract, but wanted to note that multiple margins can be distinguished through the use of either single (Case 4) or multiple (Case 5) performance obligations. The advantage of using two performance obligations in Case 5 is to distinguish between two performance obligations that cover different functions involving distinct cash flows and margins as well covering different time periods. In Cases 4 and 5, for example, the claims

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handling service margin is spread over the entire 5 year life of the contract rather than just over the contract coverage period. The downside of using two performance obligations is that both the cash flows and margins must be split into two (or more) parts—a task that would require some effort. Case 4 illustrates the use of a single performance obligation with split margins. In this illustration the risk margin covers the entire life of the contract, the full period during which the insurer is exposed to risk, while the residual margin is amortized over the contract coverage period, however, the cash flows for claims and claims handling have not be separated.

11. These examples demonstrate that, at least for simple nonlife cases, the revenue recognition model can be readily adapted to insurance accounting. The staff plans on expanding the work in other types of insurance contracts, such as various forms of long-duration life insurance and annuity contracts. For these more complex contracts, adapting the framework in the revenue recognition discussion paper to insurance contract accounting may prove to be more challenging than for the basic cases explored in this paper.

# Appendix A

Nonlife Examples	<u>Expected at Inception</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
Contracts	5,000								
Premium	1,000								
Combined Ratio	80.0%	80.0%	80.0%	80.0%	80.0%				
Composite Margin	20.0%	20.0%	20.0%	20.0%	20.0%				
Claims Payments		0.0%	0.0%	0.0%	0.0%	50.0%	25.0%	15.0%	10.0%
Asset Earning Rate	N/A								
Discount Rate	N/A								

Case 1 - Basic	<u>Inception</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
<b><u>Assets</u></b>									
Cash	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
Total Assets	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
<b><u>Liabilities</u></b>									
Performance Obligation	5,000,000	3,750,000	2,500,000	1,250,000	-				
Claims and Claims Handling Liability (Incurred)	-	1,000,000	2,000,000	3,000,000	4,000,000	2,000,000	1,000,000	400,000	-
Total Liabilities	5,000,000	4,750,000	4,500,000	4,250,000	4,000,000	2,000,000	1,000,000	400,000	-
Retained Earnings		250,000	500,000	750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Total Liabilities and Retained Earnings		5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
<b><u>Performance Obligation - Memo Entries</u></b>									
Expected Future Claims and Claims Handling Cash Flows (Pre-claim)	4,000,000	3,000,000	2,000,000	1,000,000	-	-	-	-	-
Composite Margin	1,000,000	750,000	500,000	250,000	-	-	-	-	-
Total Performance Obligation	5,000,000	3,750,000	2,500,000	1,250,000	-	-	-	-	-
<b><u>Income Statement</u></b>									
Premiums	5,000,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-
Changes in Claims and Claims Handling Liability	-	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	2,000,000	1,000,000	600,000	400,000
Claims and Claims Handling Expense (cash)	(4,000,000)	-	-	-	-	(2,000,000)	(1,000,000)	(600,000)	(400,000)
Profit	1,000,000	250,000	250,000	250,000	250,000	-	-	-	-

# Appendix A

<b>Nonlife Examples</b>	<u>Inception</u> <u>Annual</u>	<u>Total</u> <u>2nd Half</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
Contracts	5,000									
Premium	1,000									
Combined Ratio	80.0%	90.0%	80.0%	80.0%	90.0%	90.0%				
Composite Margin	20.0%	10.0%	20.0%	20.0%	10.0%	10.0%				
Claims Payments			0.0%	0.0%	0.0%	0.0%	50.0%	25.0%	15.0%	10.0%
Asset Earning Rate	N/A									
Discount Rate	N/A									

<b>Case 2 - Change in Loss Ratio</b>										
<b>Margin Adjustment</b>										
	<u>Inception</u> <u>Annual</u>	<u>Total</u> <u>2nd Half</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
<b><u>Assets</u></b>										
Cash	5,000,000		5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
Total Assets	5,000,000		5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
<b><u>Liabilities</u></b>										
Performance Obligation	5,000,000	2,500,000	3,750,000	2,500,000	1,250,000	-				
Claims and Claims Handling Liability (Incurred)	4,000,000	2,250,000	1,000,000	2,000,000	3,125,000	4,250,000	2,125,000	1,062,500	425,000	-
Total Liabilities	9,000,000		4,750,000	4,500,000	4,375,000	4,250,000	2,125,000	1,062,500	425,000	-
Retained Earnings			250,000	500,000	625,000	750,000	750,000	750,000	750,000	750,000
Total Liabilities and Retained Earnings			5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
<b><u>Performance Obligation - Memo Entries</u></b>										
Expected Future Claims and Claims Handling Cash										
Flows (Pre-claim)	4,000,000	2,250,000	3,000,000	2,250,000	1,125,000	-	-	-	-	-
Composite Margin	1,000,000	250,000	750,000	250,000	125,000	-	-	-	-	-
Total Performance Obligation	5,000,000	2,500,000	3,750,000	2,500,000	1,250,000	-	-	-	-	-
<b><u>Income Statement</u></b>										
Premiums	5,000,000	2,500,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-
Changes in Claims and Claims Handling Liability	-	-	(1,000,000)	(1,000,000)	(1,125,000)	(1,125,000)	2,125,000	1,062,500	637,500	425,000
Claims and Claims Handling Expenses (cash)	4,000,000	2,250,000	-	-	-	-	(2,125,000)	(1,062,500)	(637,500)	(425,000)
Profit			250,000	250,000	125,000	125,000	-	-	-	-

# Appendix A

## Nonlife Examples

	<u>Inception</u>	<u>2nd Half</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
Contracts	5,000									
Premium	1,000									
Combined Ratio	80.0%	90.0%	80.0%	80.0%	90.0%	90.0%				
Composite Margin	20.0%	10.0%	20.0%	20.0%	20.0%	20.0%				
Claims Payments			0.0%	0.0%	0.0%	0.0%	50.0%	25.0%	15.0%	10.0%
Asset Earning Rate	N/A									
Discount Rate	N/A									

<b>Case 3 - Change in Loss Ratio</b>	<u>Expected at</u>	<u>Expected</u>								
<b>Current Adjustment</b>	<u>Inception</u>	<u>Total</u>								
	<u>Annual</u>	<u>2nd Half</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Yr 2</u>	<u>Yr3</u>	<u>Yr 4</u>	<u>Yr 5</u>
<b>Assets</b>										
Cash	5,000,000		5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
Total Assets	5,000,000		5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
<b>Liabilities</b>										
Performance Obligation	5,000,000		3,750,000	2,500,000	1,250,000	-	-	-	-	-
Claims and Claims Handling Liability (Incurred)	-		1,000,000	2,000,000	3,125,000	4,250,000	2,125,000	1,062,500	425,000	-
Adjustment to Expected Incurred Losses		250,000		250,000	125,000	-	-	-	-	-
Total Liabilities	5,000,000		4,750,000	4,750,000	4,500,000	4,250,000	2,125,000	1,062,500	425,000	-
Retained Earnings			250,000	250,000	500,000	750,000	750,000	750,000	750,000	750,000
Total Liabilities and Retained Earnings			5,000,000	5,000,000	5,000,000	5,000,000	2,875,000	1,812,500	1,175,000	750,000
<b>Performance Obligation - Memo Entries</b>										
Expected Future Claims and Claims Handling Cash										
Flows (Pre-claim)	4,000,000	4,000,000	3,000,000	2,000,000	1,000,000	-	-	-	-	-
Composite Margin	1,000,000	1,000,000	750,000	500,000	250,000	-	-	-	-	-
Total Performance Obligation	5,000,000	5,000,000	3,750,000	2,500,000	1,250,000	-	-	-	-	-
<b>Income Statement</b>										
Premiums	5,000,000	2,500,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-
Changes in Claims and Claims Handling Liability	-	-	(1,000,000)	(1,250,000)	(1,000,000)	(1,000,000)	2,125,000	1,062,500	637,500	425,000
Claims and Claims Handling Expenses (cash)	(4,000,000)	2,250,000	-	-	-	-	(2,125,000)	(1,062,500)	(637,500)	(425,000)
Profit	<u>1,000,000</u>		<u>250,000</u>	<u>-</u>	<u>250,000</u>	<u>250,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

# Appendix A

<b>Nonlife Examples</b>	<b>Expected at Inception</b>	<b>1Q</b>	<b>2Q</b>	<b>3Q</b>	<b>4Q</b>	<b>Yr 2</b>	<b>Yr3</b>	<b>Yr 4</b>	<b>Yr 5</b>
Contracts	5,000								
Premium	1,000								
Combined Ratio (without risk margin)	80.0%	80.0%	80.0%	80.0%	80.0%				
Risk Margin (% of premium)	8.0%								
Residual Margin (% of premium)	12.0%	12.0%	12.0%	12.0%	12.0%				
Claims Payments		0.0%	0.0%	0.0%	0.0%	50.0%	25.0%	15.0%	10.0%
Asset Earning Rate	N/A								
Discount Rate	N/A								

<b>Case 4 - Basic with Risk Margin</b>	<b>Inception</b>	<b>1Q</b>	<b>2Q</b>	<b>3Q</b>	<b>4Q</b>	<b>Yr 2</b>	<b>Yr3</b>	<b>Yr 4</b>	<b>Yr 5</b>
<b>Assets</b>									
Cash	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
Total Assets	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
<b>Liabilities</b>									
Performance Obligation (without risk margin)	4,600,000	3,450,000	2,300,000	1,150,000	-				
Risk Margin	400,000	380,000	360,000	340,000	320,000	240,000	160,000	80,000	-
Claims and Claims Handling Liability (Incurred)	-	1,000,000	2,000,000	3,000,000	4,000,000	2,000,000	1,000,000	400,000	-
Total Liabilities	5,000,000	4,830,000	4,660,000	4,490,000	4,320,000	2,240,000	1,160,000	480,000	-
Retained Earnings		170,000	340,000	510,000	680,000	760,000	840,000	920,000	1,000,000
Total Liabilities and Retained Earnings		5,000,000	5,000,000	5,000,000	5,000,000	3,000,000	2,000,000	1,400,000	1,000,000
<b>Performance Obligation - Memo Entries</b>									
Expected Future Claims and Claims Handling Cash Flows (Pre-claim)	4,000,000	3,000,000	2,000,000	1,000,000	-	-	-	-	-
Risk Margin	400,000	380,000	360,000	340,000	320,000	240,000	160,000	80,000	-
Residual Margin	600,000	450,000	300,000	150,000	-	-	-	-	-
Total Performance Obligation	5,000,000	3,830,000	2,660,000	1,490,000	320,000	240,000	160,000	80,000	-
<b>Income Statement</b>									
Premiums	5,000,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-
Changes in Claims Liability (including Risk Margin)	-	(1,080,000)	(1,080,000)	(1,080,000)	(1,080,000)	2,080,000	1,080,000	680,000	480,000
Claims and Claims Handling Expenses (cash)	(4,000,000)	-	-	-	-	(2,000,000)	(1,000,000)	(600,000)	(400,000)
Profit	1,000,000	170,000	170,000	170,000	170,000	80,000	80,000	80,000	80,000

# Appendix A

<b>Nonlife Examples</b>	<b><u>Expected at</u></b>								
	<b><u>Inception</u></b>	<b><u>1Q</u></b>	<b><u>2Q</u></b>	<b><u>3Q</u></b>	<b><u>4Q</u></b>	<b><u>Yr 2</u></b>	<b><u>Yr3</u></b>	<b><u>Yr 4</u></b>	<b><u>Yr 5</u></b>
Contracts	5,000								
Premium	1,000								
Initial Combined Ratio	80.0%	80.0%	80.0%	80.0%	80.0%				
Claims Payments - Runoff		0.0%	0.0%	0.0%	0.0%	50.0%	25.0%	15.0%	10.0%
Claims Handling Expense - Cash as Expensed									
Asset Earning Rate	N/A								
Discount Rate	N/A								

<b>Case 5 - Two Performance Obligations</b>	<b><u>Inception</u></b>								
		<b><u>1Q</u></b>	<b><u>2Q</u></b>	<b><u>3Q</u></b>	<b><u>4Q</u></b>	<b><u>Yr 2</u></b>	<b><u>Yr3</u></b>	<b><u>Yr 4</u></b>	<b><u>Yr 5</u></b>
<b><u>Assets</u></b>									
Cash	5,000,000	4,950,000	4,900,000	4,850,000	4,800,000	3,100,000	2,150,000	1,500,000	1,000,000
Total Assets	5,000,000	4,950,000	4,900,000	4,850,000	4,800,000	3,100,000	2,150,000	1,500,000	1,000,000
<b><u>Liabilities</u></b>									
Performance Obligation - Protection	3,800,000	2,850,000	1,900,000	950,000	-	-	-	-	-
Perf Oblig - Claims Handling	1,200,000	1,140,000	1,080,000	1,020,000	960,000	720,000	480,000	240,000	-
Total Performance Obligations	5,000,000	3,990,000	2,980,000	1,970,000	960,000	720,000	480,000	240,000	-
Claims and Claims Handling Liability (Incurred)	3,000,000	750,000	1,500,000	2,250,000	3,000,000	1,500,000	750,000	300,000	-
Total Liabilities	8,000,000	4,740,000	4,480,000	4,220,000	3,960,000	2,220,000	1,230,000	540,000	-
Retained Earnings		210,000	420,000	630,000	840,000	880,000	920,000	960,000	1,000,000
Total Liabilities and Retained Earnings		4,950,000	4,900,000	4,850,000	4,800,000	3,100,000	2,150,000	1,500,000	1,000,000
<b><u>Performance Obligations - Memo Entries</u></b>									
Expected Future Claims and Claims Handling Cash Flows (Pre-claim)	3,000,000	2,250,000	1,500,000	750,000	-	-	-	-	-
Residual Margin	800,000	600,000	400,000	200,000	-	-	-	-	-
Total Performance Obligation - Protection	3,800,000	2,850,000	1,900,000	950,000	-	-	-	-	-
Claims Handling Expenses	1,000,000	950,000	900,000	850,000	800,000	600,000	400,000	200,000	-
Claims Service Margin	200,000	190,000	180,000	170,000	160,000	120,000	80,000	40,000	-
Total Performance Obligation - Claims Handling	1,200,000	1,140,000	1,080,000	1,020,000	960,000	720,000	480,000	240,000	-
Total Performance Obligation - Protect	5,000,000	3,990,000	2,980,000	1,970,000	960,000	720,000	480,000	240,000	-
<b><u>Income Statement</u></b>									
Revenue - Premiums	5,000,000	1,010,000	1,010,000	1,010,000	1,010,000	240,000	240,000	240,000	240,000
Changes in Claims Liability	-	(750,000)	(750,000)	(750,000)	(750,000)	1,500,000	750,000	450,000	300,000
Claims Expenses (Cash)	(3,000,000)	-	-	-	-	(1,500,000)	(750,000)	(450,000)	(300,000)
Claims Handling Expenses (Cash)	(1,000,000)	(50,000)	(50,000)	(50,000)	(50,000)	(200,000)	(200,000)	(200,000)	(200,000)
Profit	1,000,000	210,000	210,000	210,000	210,000	40,000	40,000	40,000	40,000