

Reinsurance Accounting: Schedule F

Sholom Feldblum, FCAS, FSA, MAAA

REINSURANCE ACCOUNTING: SCHEDULE F

prepared by
Sholom Feldblum

(Sixth Edition, January 2002)

[The author is indebted to Martin F. Carus, James Anastasio, Robert Graham, Peter J. Murdza, Jr., and Dennis Lange for extensive review of earlier drafts of this paper.

Martin Carus, Assistant Deputy Commissioner and Chief Examiner of the Life Insurance and Companies Bureau at the New York State Insurance Department, was a member of the NAIC Reinsurance Study Group that developed the new Schedule F. James Anastasio, Vice President and Treasurer at the American Re-Insurance Company, and Robert Graham of the General Reinsurance Corporation served on the industry advisory committee that worked with the NAIC in developing the new Schedule F. Dennis Lange, the editor of the *CAS Forum*, meticulously checked the wording and illustrations in this paper, providing dozens of corrections to the final draft.

The corrections made by Messrs. Carus, Anastasio, Graham, Murdza, and Lange have greatly improved this paper. Any errors remaining are the fault of the author alone and should not be attributed to these individuals.]

REINSURANCE ACCOUNTING: SCHEDULE F

Introduction

Schedule F discloses an insurer's reinsurance transactions for both ceded business and assumed business. It is one of the most complex schedules in the Annual Statement, having grown from its original focus on unauthorized reinsurance to cover overdue loss recoverables, amounts in dispute, and a restatement of the statutory balance sheet. The complete rewrite of Schedule F for the 1993 Annual Statement heightened the need for clear documentation of these statutory exhibits, which this paper provides.

Reinsurance transactions are an important consideration in monitoring a company's financial strength, as demonstrated by the emphasis on reinsurance arrangements and collectibility in the NAIC *IRIS Tests*, the risk-based capital requirements, the *Statement of Actuarial Opinion* and the Canadian *Report of the Actuary*.

This paper explains the structure and purposes of Schedule F, as well as the relationship of this schedule to other statutory statements. This paper also contains illustrations of

- Calculating the statutory penalty for
 - i. Recoverables from unauthorized reinsurers (Part 5),
 - ii. Overdue recoverables (Part 6), and
 - iii. Recoverables from "slow-paying" authorized reinsurers (Part 7).
- Completing the restated balance sheet (Part 8), and

Both the insurance industry and its consumers benefit from efficient regulation that promotes insurance company solvency. The paper concludes with an analysis of the objectives of reinsurance regulation, the success of Schedule F in meeting these objectives, and suggestions for improving the schedule and the associated regulation.

STRUCTURE OF SCHEDULE F

Schedule F serves several purposes:

- Parts 1-3 provide the *supporting data* for the company's assumed and ceded reinsurance accounting entries. Part 1 shows assumed premiums and losses by type of reinsured, and Part 3 shows ceded premiums and losses by type of reinsurer. Part 2 shows an exhibit of premiums (but not losses) on portfolio reinsurance transactions that were effected during the most recent calendar year.

- Parts 4-7 develop the *provision for reinsurance*. Part 4 shows an aging schedule for recoverables on paid losses and loss adjustment expenses. Part 5 calculates the statutory provision for reinsurance recoverables from unauthorized companies: unsecured total recoverables, overdue recoverables, and amounts in dispute. Parts 6 and 7 calculate the statutory provision in the same three categories for reinsurance recoverables from authorized companies: for non-slow-paying authorized reinsurers in Part 6 and from slow-paying authorized reinsurers in Part 7.
- Statutory accounting is on a "net of reinsurance" basis, with reinsurance recoverables serving as offsets to direct liabilities. Part 8 of Schedule F *restates the statutory balance sheet* from a net to a gross basis.

Most insurance exhibits and schedules in the NAIC financial statements show data by line of business. This is the format in the Underwriting and Investment Exhibit, the Page 15 state exhibits, Schedule P, and the Insurance Expense Exhibit. Reinsurance transactions in Schedule F are on a line of business basis as well: by primary line for ceded business and for assumed proportional business and by reinsurance line (property, casualty, and financial) for assumed non-proportional business.

Schedule F shows figures for all lines of business combined, split by reinsurance company for ceded business and by reinsured company for assumed business.

Part 1: Assumed Reinsurance

Part 1 of Schedule F shows a listing of assumed reinsurance relationships by reinsured company. The listing is subdivided, where appropriate, by affiliated versus unaffiliated company, U.S. versus alien company, and type of company (mandatory pools versus voluntary pools versus other companies).¹

The assumed reinsurance in Part 1 of Schedule F and the ceded reinsurance in Part 3 of Schedule F are prospective reinsurance only. Retroactive reinsurance affects the special surplus entry on the liability side of the statutory balance sheet (page 3 of the Annual Statement), but it is not reflected in the exhibits and schedules, such as Schedule F.²

Assumed reinsurance entries are of four types:

- Losses payable to the reinsured company on paid losses and on case reserves;

¹ A domestic company is one domiciled in the state under consideration. A U.S. company domiciled in another state is a *foreign* company. A company domiciled outside the U.S. is an *alien* company.

² SSAP No. 62, "Reinsurance," paragraph 28, says with regard to retroactive reinsurance agreements:

- a. The ceding entity shall record, without recognition of the retroactive reinsurance, loss and loss expense reserves on a gross basis on the balance sheet and in all schedules and exhibits.
- b. The assuming entity shall exclude the retroactive reinsurance from loss and loss expense reserves and from all schedules and exhibits.

Retroactive reinsurance does not reduce the loss reserves reported in the Annual Statement for the ceding company. However, it affects statutory income in the same fashion as prospective reinsurance does, except that it is booked under "other income" on the statutory statement of earnings. It has a full effect on policyholders' surplus, though not on the unassigned portion of surplus. It fully affects GAAP income, GAAP equity, and taxable income.

The risk-based capital ratio is slightly reduced if the reinsurance is coded as retroactive instead of prospective. The risk-based capital ratio, which determines the RBC action level, is the ratio of risk-based capital adjusted surplus to the risk-based capital requirements for the company.

- The risk-based capital adjusted surplus includes special surplus funds just as it includes unassigned surplus funds. The adjusted surplus used to compute the risk-based capital ratio does not depend on whether the reinsurance is classified as prospective or retroactive.
- The RBC reserving risk charge is greater than the charge for reinsurance recoverables, particularly after the covariance adjustment. Prospective reinsurance reduces risk-based capital requirements and decreases the denominator of the risk-based capital ratio.

Prospective reinsurance reduces the denominator of the risk-based capital ratio and increases the ratio itself. Retroactive reinsurance does not have this effect.

- Premiums assumed from the reinsured company, the unearned portion of the assumed premiums, and assumed premiums that are still uncollected;
- Contingent commissions receivable from or payable to the reinsured company; and
- Security, or funds deposited with the reinsured company and letters of credited provided for the benefit of the reinsured company.

LOSSES PAYABLE

Losses payable to the reinsured company are divided between reserves on loss already paid by the ceding company (column 6) and reserves on reported but unpaid losses of the ceding company (column 7). Column 6 agrees with line 2 of page 3 (the statutory balance sheet), which has an explicit reference to Schedule F, Part 1, column 6.

Column 7 of Schedule F, Part 1 is similar to the entry on the Underwriting and Investment Exhibit, Part 3A, column 2. However, the Schedule F entry includes loss adjustment expense whereas the Underwriting and Investment Exhibit entry does not, so there is no exact reconciliation.

The reporting company must also hold reserves for IBNR losses of the ceding companies.³ These are shown in the Underwriting and Investment Exhibit, Part 3A, column 6, which reports the total for all ceding companies by line of business. The reporting company's reserves on IBNR losses are not subdivided by ceding company, so they are *not* shown in Schedule F, Part 1.⁴

Reinsured losses paid during the year are not shown in Schedule F. They are shown by line of business for all ceding companies combined in the Underwriting and Investment Exhibit, Part 3, column 2.

³ The reporting company is the company preparing Schedule F.

⁴ Schedule F, Part 3, shows reinsurance loss recoverables subdivided between loss and LAE and between recoverables on case reserves and those on IBNR reserves. The ceding company generally estimates the IBNR recoverables by reinsurer, so that it may offset its direct loss reserves. Similarly, it estimates the recoverable separately for losses and for loss adjustment expenses, so that it may offset its unpaid losses and LAE on lines 1 and 3 of page 3. The assuming company has no need for these separate estimates.

PREMIUMS AND COMMISSIONS

Column 9 shows contingent commissions payable; column 10 shows assumed premiums receivable; and column 11 shows unearned premium. The column 10 entry is net of regular commissions, which do not appear in column 9. The column 9 entry is for contingent commissions (sometimes called profit commissions) only, and it may be either a positive or negative figure. A positive figure means that the reporting company expects to pay additional contingent commissions to the ceding company. A negative figure means that the reporting company expects to receive back some contingent commissions previously paid to the ceding company.

Illustration: Suppose the reporting company has two reinsurance treaties, both with a gross premium of \$1,000,000. One treaty has a fixed commission rate of 30% of gross premiums. If no premium has yet been received, the column 10 entry would be \$700,000, since "the amounts reported should be net of commissions payable" (*Instructions*).⁵ The column 9 entry would be \$0, since the treaty has no contingent commissions.

The other treaty has a sliding scale contingent commission arrangement, where the commission depends on the loss ratio of the assumed business: 30% minus one half of the difference between the actual loss ratio and 70%, or

$$30\% - 0.5 \times (\text{actual loss ratio} - 70\%),$$

bounded between 10% (for an actual loss ratio of 110%) and 50% (for an actual loss ratio of 30%). At the last meeting between the reinsurer and the ceding company, the loss ratio was estimated at 60%, so a 35% commission was paid. Since that time, additional reported losses indicate that the true loss ratio is 80%, so the final contingent commission should be 25%. The contingent commission payable is a negative 10% of \$1,000,000, or -\$100,000.

FUNDS WITHHELD AND LETTERS OF CREDIT

A reinsurer may provide funds or letters of credit to secure the balances payable to the ceding company.

- If the reinsurer is not authorized to transact reinsurance business in the state of domicile of the ceding company, the ceding company must post a statutory liability called the

⁵ SSAP No. 62, "Reinsurance," paragraph 50, explains: *Commissions payable on reinsurance assumed business shall be included as an offset to Agents' Balances or Uncollected Premiums. Commissions receivable on reinsurance ceded business shall be included as an offset to Ceded Reinsurance Balances Payable.*

provision for reinsurance to offset the reinsurance recoverables. In common parlance, the reinsurance recoverables are not admitted to reduce the net loss liability unless the recoverables are secured (see the subsequent discussion of Schedule F, Part 5).⁶

- If the reinsurer is authorized but triggers the "slow-paying" test in Schedule F, Part 4, it is classified as a slow paying reinsurer, and a provision for reinsurance equal to (at least) 20% of the reinsurance recoverables must be posted, unless the recoverables are secured (see the subsequent discussion of Schedule F, Part 7).
- Even if the reinsurer is both authorized and not slow-paying, the ceding company may request letters of credit to ensure that its losses will be reimbursed.

Part 1 of Schedule F shows these securing amounts as follows:

- Column 12 shows "funds held by or deposited with reinsured companies." These assets, owned by the reinsurer but held by the ceding company, are shown on line 11 of page 2 of the reinsurer's balance sheet (assets) and on line 12 of page 3 of the ceding company's balance sheet (liabilities).
- Column 13 shows "letters of credit posted." The letter of credit may be issued by a bank or other financial institution to secure recoverables from the reinsurer. The letter of credit does *not* affect the reinsurer's balance sheet, but it reduces the provision for reinsurance on the ceding company's balance sheet (if the reinsurer is unauthorized or slow-paying).
- Column 14 shows "amount of assets pledged or compensating balances to secure letters of credit." The commercial bank issuing the letter of credit may demand that the reinsurer hold a compensating balance in an account with the bank to secure the letter of credit. Suppose the ceding company wants a letter of credit to secure the recoverables from an unauthorized reinsurer. A commercial bank might charge a high fee to provide the letter of credit. To reduce the fee, the reinsurer transfers cash from another financial institution to the bank issuing the letter of credit. The reinsurer is restricted from using these funds as long as the bank's obligation on the letter of credit remains outstanding.

⁶ In more rigorous statutory accounting terms, the reinsurance recoverables are always admitted, since they reduce the statement reserves of the ceding company, whether on the balance sheet (page 3, line 1), the Underwriting and Investment Exhibit, or Schedule P, regardless of whether the reinsurer is authorized or slow-paying. Unsecured recoverables from unauthorized reinsurers, 20% of unsecured recoverables from slow-paying authorized reinsurers, 20% of loss recoverables more than 90 days overdue from all reinsurers, and 20% of amounts in dispute from unauthorized reinsurers and from non-slow paying authorized reinsurers must be reported as a statutory provision for reinsurance on the liability side of the balance sheet (page 3, line 15).

Part 2: Portfolio Reinsurance

Part 2 of Schedule F shows "Premium portfolio reinsurance effected or cancelled during the current year." Reinsurance ceded by portfolio is shown on the top half of the page, and reinsurance assumed by portfolio is shown on the bottom half of the page.

The information in Part 2 of Schedule F relates to premiums only, shown separately by reinsuring or ceding company. The entries are

- Columns 1-3: Company identification (federal ID number, NAIC company code, name)
- Column 4: Date of Contract
- Column 5: Amount of Original Premium
- Column 6: Amount of Reinsurance Premiums

Portfolio reinsurance is defined in the Annual Statement Instructions as "the transfer of the entire liability of an insurer for in force policies as respects a described segment of the insurer's business." No guidance is provided for the entries in columns 5 and 6.

Originally (in 1989), Part 2 of Schedule F dealt with premiums on loss portfolio transfers. In the early 1990's, the term "loss portfolio transfers" was changed to retroactive reinsurance, as was the title of Schedule F, Part 2. Retroactive reinsurance is defined in SSAP, paragraph 21, as "reinsurance in which a reinsurer agrees to reimburse a ceding entity for liabilities incurred as a result of past insurable events covered under contracts subject to the reinsurance." The NAIC *Instructions* to the Statement of Actuarial Opinion (section 11) provide a three-fold definition:

For the purpose of this instruction, "retroactive reinsurance" refers to any agreement which increases the transferring insurer's Surplus to Policyholders as a result of the transferee undertaking any loss obligation already incurred and for which the consideration paid by the transferring insurer is derived from present value or discounting concepts.

Portfolio reinsurance appears to include both prospective and retroactive reinsurance, though the primary policies must be "in force." SSAP No. 62, "Reinsurance," paragraph 29, defines portfolio reinsurance as "the transfer of an insurer's entire liability for in force policies or *outstanding losses*, or both, of a segment of the insurer's business" (emphasis added). The "in force" qualification in the Annual Statement *Instructions* is not determinative.

The intention of columns 5 and 6 is unclear. Since column 6 refers to the reinsurance premium, column 5 seems to refer to the primary premium. One insurer, which ceded the

prospective part of policies in force for a block of business, entered the primary premium for the entire block as the original premium in column 5 and the reinsurance premium in column 6.

The treatment of loss portfolio transfers in the Annual Statement changed in the early 1990's, and there was a need for regulators to track these agreements to ensure that proper statutory accounting was being followed. The purpose of an exhibit showing the premium on portfolio reinsurance is unclear.

Part 3: Ceded Reinsurance

Part 3 of Schedule F shows a listing of ceded reinsurance relationships by reinsurance company. The listings are subdivided by affiliated versus unaffiliated company, authorized versus unauthorized company, U.S. versus alien company, and type of company (mandatory pools versus voluntary pools versus other companies).

The authorized versus unauthorized status of the reinsurer is essential for Schedule F, whose primary purpose is to determine the provision for reinsurance. Unaffiliated reinsurers may clearly be either authorized or unauthorized. An affiliated reinsurer may also be unauthorized. A domestic company may have an unauthorized off-shore affiliate in a tax haven. Reinsurance ceded to the unauthorized affiliate may be used to reduce tax liabilities or to circumvent U.S. restrictions on loss reserve discounting.

The columns in Part 3 emphasize the amounts recoverable from assuming reinsurers and the offsetting funds that secure the recoverables. This information is used to derive the provision for reinsurance by type of reinsurer. We explain each column below.

FRONTING COMPANIES

Column 5 identifies "insurance contracts ceding 75% or more of direct premiums written." There is a cost to buying reinsurance. If the reinsurance contract cedes 75% or more of the primary premium, one might wonder why the primary company wrote the business in the first place.

Regulators are often suspicious of such reinsurance arrangements. It is true that some risks are too large or too risky for the primary company. A primary insurance company may bid on a \$50 million commercial office building and then cede most of the exposure to larger reinsurers. Even in these scenarios, it is unusual for the ceded premium to be 75% or more of the primary premium. Excess of loss reinsurance premiums are rarely that large, and quota share reinsurance cessions of 75% or more of the exposure are not common.

Fronting arrangements are used by insurers seeking to write direct business in jurisdictions where they are not licensed, particularly if the jurisdiction has extraterritorial regulation. Suppose the ABC Insurance Company wishes to write business in New York, but it does not wish to subject its operations to New York insurance requirements, and it is not licensed in New York. The XYZ Insurance Company is licensed in New York and writes business there. The ABC Insurance Company may have the XYZ Insurance Company write the business and cede the premium to ABC. The XYZ Insurance Company gets a fronting company fee for its services from the ABC Insurance Company, and ABC gets to write the business without supervision of the New York Insurance Department.

Regulators do not always like such fronting arrangements. Ideally, the regulator would like to monitor the accounts of the ABC Insurance Company, but ABC is not licensed in the jurisdiction and its books are not shown to the regulator. Instead, the regulator monitors the accounts of the fronting company, which is licensed in the jurisdiction.

This is the general regulatory perspective in much of Schedule F. Ideally, the regulator would like to monitor the accounts of unauthorized reinsurers and of authorized reinsurers in financial distress with overdue accounts payable. But it does not have access to the accounts of unauthorized reinsurers, and companies in financial distress may not present a "full and true statement" of their accounts. Instead, regulators seek the relevant information from companies domiciled or licensed in their states.

The Annual Statement *Instructions* say that

Each individual contract, except those listed below, which provides for the cession of 75% or more of direct premiums written under such cession during the year, should be identified by inserting a 2 in this column. The reinsurance transactions so identified shall include both treaty and facultative cessions of direct business written by the company.

Possible fronting arrangements can be ascertained from the entry in this column.

EXCEPTIONS

Four types of reinsurance contracts are exempt from identification in this column.

(1) *Affiliated transactions*: Intercompany reinsurance transactions with affiliates are exempt from identification in this column. Sister companies A, B, and C may participate in an intercompany pooling agreement, whereby companies A and C cede all their business to company B. Company B retrocedes one third of the pooled business back to company A and one third back to company C. These transactions appear as affiliated reinsurance cessions in Schedule F. These are not fronting arrangements. Insurers use fleets of companies for rating purposes: one company may have rates for preferred insureds and another company may have rates for substandard insureds.

(2) *Pools*: Insurers participate in various involuntary market pools and joint underwriting associations, particularly for workers' compensation and commercial automobile business. One or more companies act as servicing carriers for the pool. They write the involuntary business and cede everything to the pool, keeping only an expense allowance for their acquisition costs and underwriting costs. These are not fronting arrangements, and they are exempt from identification in this column. The Annual Statement *Instructions* say

Exclude: Reinsurance transactions involving any group, association, pool, or organization of insurers which engage in joint underwriting activities and which are subject to examination by any state regulatory authority or which operate pursuant to any state or federal statutory or administrative authorization.

(3) *Small Amounts:* A reinsurance transaction in which the annual gross premium ceded is less than 5% of policyholders' surplus is exempt from identification in this column. Regulators are concerned about companies that serve as fronting insurers for other companies. A small reinsurance transaction may result from the ceding company leaving a line of business or a geographic area when it has little remaining business.

(4) *Captives:* Reinsurance transactions involving captive insurance companies are exempt from identification in this column. An insurance company can deduct loss reserves from its taxable income. A non-insurance company can deduct only paid losses from its taxable income, not loss reserves. To gain the tax benefits of insurance while avoiding the expense costs of commercial insurance, a large policyholder may form an insurance subsidiary to write coverage on the parent company's exposures.

It is expensive for insurance companies to hold capital, partly because of double taxation costs.⁷ To avoid holding capital, the captive may cede the business to the parent company, to other affiliates of the parent company, or to unaffiliated reinsurers.

LOSS AND LOSS ADJUSTMENT EXPENSES

Columns 7 and 8 of Schedule F, Part 3 show "reinsurance recoverable on paid losses and on paid LAE" (respectively). Reinsurance recoverables on paid losses and loss adjustment expenses are balance sheet assets on both statutory and GAAP financial statements; see SFAS 113 and SSAP No. 62, paragraph 19.⁸ The total of columns 7 plus 8 should equal the entry on page 2, column 3, line 14, "Reinsurance recoverables on loss and loss adjustment expense payments."⁹

⁷ See Feldblum [DCCS] on the costs to an insurance company of holding capital.

⁸ Both authorized and unauthorized reinsurance recoverables are admitted on the asset side of the balance sheet. SSAP No. 62, paragraph 19, says: "Reinsurance recoverable on loss payments is an admitted asset. . . . Unauthorized reinsurance is included in this asset and reflected separately as a liability to the extent required." The asset for reinsurance recoverables does not depend on the authorized status of the reinsurer. The provision for reinsurance on the liability side of the balance sheet *does* depend on the authorized status of the reinsurer.

⁹ On the asset side of the statutory balance sheet, column 1 shows the gross asset, column 2 shows the non-admitted portion, and column 3 shows the net admitted asset, all for the current year. Column 4 shows the net admitted asset for the previous year. Schedule F shows only the net admitted amounts. All of these figures are gross of the provision for reinsurance. The balance sheet is in dollars whereas Schedule F is in

Reinsurance recoverables on unpaid losses and LAE are divided into four groups:

- Column 9 – Recoverables on known case loss reserves
- Column 10 – Recoverables on known case LAE reserves
- Column 11 – Recoverables on IBNR loss reserves
- Column 11 – Recoverables on IBNR LAE reserves

Reinsurance recoverables on unpaid losses and loss adjustment expenses are contra-liabilities on the statutory balance sheet; they offset the direct loss and LAE reserves on page 3, lines 1, 2, and 3.¹⁰ The Underwriting and Investment Exhibit, Part 3A, "Unpaid losses and loss adjustment expenses" shows ceded loss reserves divided between reported losses in column 3 (or "case reserves") and incurred but not reported losses in column 7. The totals for all lines of business combined in the Underwriting and Investment Exhibit, Part 3A, for columns 3 and 7 should equal the totals for all reinsurers combined in Part 3 of Schedule F, columns 9 and 11, respectively.

For loss adjustment expenses, the Underwriting and Investment Exhibit shows the net amount in column 9, but not the direct, assumed, and ceded pieces of the net amount. There is no formal cross-check for columns 10 and 12 of Schedule F, Part 3.¹¹

UNEARNED PREMIUMS

Column 13 shows unearned premiums. The unearned premium reserves held by the assuming reinsurers are similar to the loss recoverables due from these reinsurers, since if the reinsurer cancels the contract or if it becomes insolvent, the unearned premium reserves must be returned to the ceding company. For calculating the provision for reinsurance from unauthorized and slow-paying reinsurers, the unearned premium reserves and contingent commissions are included with loss recoverables.

thousands of dollars. The Schedule F entry must be multiplied by 1000 before comparison with the balance sheet.

¹⁰ See SSAP No. 62, paragraph 26: "Reinsurance recoverables on unpaid case-basis and incurred but not reported losses and loss adjustment expenses shall be netted against the liability for gross losses and loss adjustment expenses."

¹¹ Schedule P shows both loss and loss adjustment expense liabilities for ceded business. However, Schedule P uses a different allocation of reinsurance to direct, assumed, and ceded categories than Schedule F does, so the figures may differ between the schedules. See footnote 40 below, as well as the letter from Martin F. Carus of the New York Insurance Department to Robert Solitro of October 28, 1991 regarding Part 1A of Schedule F (*Proceedings of the NAIC, 1992, Volume 1A, page 351*).

When Schedule F was revised in 1993, a simplified estimation procedure was permitted for the unearned premium reserves column in Part 3.¹² The current Annual Statement *Instructions* do not mention this approximation; we do not know if companies may still use it. We explain the approximation below, without judging whether it is still allowed.

For unauthorized reinsurers, the actual unearned premium must be calculated, since this contra-liability must be offset by a provision for reinsurance unless the funds are secured. When there are many authorized reinsurers involved, the unearned premium reserves associated with each company may be estimated as follows:

- A. Calculate the total unearned premium reserve (UEPR) for all reinsurers combined.
- B. Calculate the unearned premium reserve for each unauthorized reinsurer. The sum of these reserves is the aggregate UEPR for unauthorized reinsurers.
- C. The difference between "A" and the aggregate in "B" is the unearned premium reserve associated with authorized reinsurers.
- D. Spread the aggregate unearned premium reserve for authorized reinsurers to companies in proportion to the premium in force for each reinsurer.

If $UEPR_{com}$ is the unearned premium reserve for a given authorized reinsurer, $UEPR_{tot}$ is the aggregate unearned premium reserve for all authorized reinsurers, PIF_{com} is the premium in force for this authorized reinsurer, and PIF_{tot} is the aggregate premium in force for all authorized reinsurers,

then $UEPR_{com}$ may be estimated as

$$UEPR_{com} = UEPR_{tot} \times PIF_{com} \div PIF_{tot}.$$

¹² See the NAIC *Proceedings*, 1991, Volume 1A, page 368.

COMMISSIONS

Column 14 shows reinsurance recoverables on contingent commissions. They may be either positive or negative amounts: positive if the reinsurance experience is favorable and the reporting company expects additional contingent commissions, and negative if the reinsurance experience is unfavorable and the reporting company must return some of the contingent commissions already received.

Regular commissions are netted with the ceded balances payable in column 16. In other words, the ceded premium balances are net of regular commissions. Suppose the ceding company has a quota share reinsurance treaty with a 30% commission rate. If the gross premium balance is \$1,000,000, the ceding company would show \$700,000 in column 16. Amounts stemming from profit commissions or contingent commissions, whether positive or negative, are shown in column 14, not in column 16.

The total reinsurance recoverables for contingent commissions, whether positive or negative, should agree with the figure in Note 22 to the Financial Statements, section C.2:

Report the additional or return commissions, predicated on loss experience or on any other form of profit sharing arrangements in this annual statement as a result of existing contractual arrangements.

The Commission Footnote

A company may use reinsurance as surplus relief for statutory statements. This is acceptable practice, since the reinsurance reduces the underwriting risk of the company.

A company may structure the reinsurance agreement to provide more surplus relief than is warranted. State regulators frown upon such practices, since they may be indicative of financial trouble. The commission footnote to Part 3 of Schedule F (reproduced below) seeks to identify instances of this practice. The footnote requests disclosure of the five largest provisional commission rates in reinsurance treaties. The provisional commission rate is the commission rate before application of loss sensitive contract features, such as sliding scale commissions and retrospective rating; see the second illustration below.

Reinsurance commissions from involuntary pools and joint underwriting associations are not included in the footnote disclosure. The involuntary pools may provide a high commission allowance to servicing carriers because of the difficulty of servicing the small, high risk insureds who comprise much of the pool population. The commission allowance is set by

state regulation or by an industry rating bureau. The servicing carrier is not using the pool for surplus relief.¹³

Martin F. Carus (a member of the NAIC Reinsurance Study Group which developed the current format of Schedule F) explains the rationale of the footnote as follows:¹⁴ *The purpose of the footnote is to detail the five largest commission rates (or where contingent commission clauses exist, the provisional commission rates) for the cedent's treaties so that it can be discerned if any treaties have inordinately high rates. Examination and internal financial analyses have found that some insurers were masking their leverage ratios and true underwriting performance by increasing the ceded premium and commission levels in their ceded reinsurance agreements.*¹⁵ We explain Mr. Carus's comment with two illustrations after showing the text of the note.

NOTE: Report the five largest provisional commission rates included in the cedent's reinsurance treaties. The commission rate to be reported by contract with ceded premium in excess of \$50,000.

(1)	(2)	(3)
Name of Company	Commission Rate	Ceded Premium
(1)		
(2)		
(3)		
(4)		
(5)		

Two illustrations clarify the purpose of this footnote. (I am indebted to Mr. Carus for both illustrations.¹⁶)

¹³ See the Annual Statement *Instructions* for Schedule F, Part 3: "Disclosure of the five largest provisional commission rates should exclude mandatory pools and joint underwriting associations."

¹⁴ Personal communication in a letter of January 25, 1994.

¹⁵ The disclosure in Note 22 to the Financial Statements, section C.1 quantifies the total surplus relief provided by reinsurance commissions. SSAP No. 62, "Reinsurance," paragraph 70(a), "Reinsurance Assumed and Ceded" explains that *the financial statements shall disclose the maximum amount of return commission which would have been due reinsurers if all reinsurance were canceled with the return of the unearned premium reserve*. In general, this surplus relief is proper accounting, though an inordinate amount of surplus relief may arouse regulatory suspicion of financial weakness. The purpose of the commission footnote in Part 3 of Schedule F is to identify possibly *improper* reinsurance commission arrangements.

¹⁶ The text of Mr. Carus's letter follows: "For instance, company A enters into an excess of loss treaty with a premium based on 6% of gross net (i.e., gross of direct commissions but net of other ceded premium)

ILLUSTRATION 1: Excess of loss reinsurance is generally priced without a ceding commission. Suppose the ABC Insurance Company has \$100 million of subject written premium on January 1, 20XX, and its policyholders' surplus has fallen to \$30 million. The 3.33 to 1 ratio of written premium to policyholders' surplus is above the trigger of the NAIC IRIS test, and the company may be subject to additional regulatory attention.

If the company purchases an excess of loss reinsurance treaty for a premium of \$6 million, or 6% of the subject premium, the net written premium is \$94 million. Surplus remains at \$30 million, since the reduction in cash of \$6 million is offset by a reduction in unearned premium reserves of \$6 million. The written premium to policyholders' surplus ratio is 3.13 to 1, which is still too high.

Instead, the company purchases the same excess of loss reinsurance treaty, but the treaty calls for a reinsurance premium of \$12 million (or a 12% reinsurance premium rate) along with a 50% ceding commission. The cash flows in the reinsurance treaty have not changed – the net reinsurance premium is still \$6 million – but the statutory accounting presentation is different. The ceding company shows \$88 million of net written premium and \$36 million of policyholders' surplus. The \$12 million of reinsurance premium is offset by a \$12 million reduction of the unearned premium reserves, and the \$6 million of ceding commission is a

written or earned premium. Company B writing the same block of business obtains the same excess of loss treaty but pays 12% of gross net premiums and earns a commission of 50%. Both insurers have protected themselves equally in terms of exposure but company B's leverage position is markedly improved over that of company A. The commissions are earned immediately by company B while company A must earn its retained premium ratably over the underlying policy terms. Moreover, company B's net premiums written or earned are artificially decreased which makes its premium leverage ratios look better than company A's. This is inappropriate considering the companies' equal exposure. Regulators' concerns are generated when companies change their ceded reinsurance programs from year 1 to year 2 or going from a company A position to a company B position.

Similar examples can be constructed relative to quota share arrangements where provisional commission rates, adjustable based on developing loss experience, are used to accomplish the same thing. Compare a 20% quota share arrangement with a 10% provisional commission rate to a 40% quota share arrangement with a 55% provisional commission rate on the same block of business. If ultimately the exposures' results work out evenly, the net compensation to the reinsurer will be the same; however, the temporary masking effects and income generation features described above hinder accurate financial condition assessment by regulators.

This is the reason for the disclosures at the bottom of Schedule F – Part 3. Using the word “provisional” in the footnote connotes the intention of looking at the rates as the treaties are initiated and not after their development because it is at initiation that the manipulation of leverage and income is generated. It is also intended that a regulator will be looking to the cedent's acquisition cost ratios in Part 4 of the Underwriting and Investment Exhibit to see if there are wide divergences with footnoted commission rates. This has particular reference to the example with excess treaties. If these are found to exist, undoubtedly the cedent will be queried by the regulator.

The purpose of this disclosure is to enable regulators to monitor whether a ceding company is masking an unduly high leverage ratio by means of reinsurance treaties with high commission rates.”

revenue. The ratio of net written premium to policyholders' surplus is \$88 million / \$36 million = 2.44, which is well below the IRIS trigger of 3.

ILLUSTRATION 2: Quota share reinsurance is priced with a ceding commission. Varying the ceding commission changes the effective reinsurance premium rate, so the accounting sleight-of-hand is more subtle. The reinsurance treaty can set the ceding commission as a contingent commission, with a high provisional commission rate to provide surplus relief.

Suppose the ABC Insurance Company has \$100 million of subject written premium on January 1, 20XX, and its policyholders' surplus has fallen to \$20 million. The 5 to 1 ratio of written premium to policyholders' surplus is so high that the company might attract regulatory examination.

The company's business is so poor and its financial condition is so weak that reinsurers might be reluctant to provide aid. Instead, the company might purchase a 20% quota share reinsurance treaty with a 10% provisional ceding commission that has a 1 for 1 sliding scale. The 10% provisional ceding commission assumes a 90% loss ratio. If the actual loss ratio is higher, such as 95%, the ceding commission is reduced to 5%; if the actual loss ratio is lower, such as 80%, the ceding commission is increased to 20%. This is finite reinsurance. The reinsurer has little underwriting risk; the purpose of the reinsurance treaty is surplus relief.¹⁷

The net cash flow at inception of the treaty is \$20 million \times (1 - 10%) = \$18 million. The net written premium is \$80 million and the adjusted surplus is \$22 million. At inception, the revised ratio of written premium to policyholders' surplus is \$80 million / \$22 million, or 3.64. This is still too high.

To solve its surplus problem, ABC Insurance Company purchases a 40% quota share reinsurance treaty with a 55% provisional ceding commission. The cash flow at inception of the treaty is exactly the same as in the previous scenario. The net cash flow at inception is \$40 million \times (1 - 55%) = \$18 million. But the net written premium is \$60 million and the adjusted surplus is \$42 million. At inception, the revised written premium to policyholders' surplus ratio is \$60 million / \$42 million, or 1.43. This appears excellent.

This "solution," of course, is accounting gimmickery. The high 55% ceding commission is just an accounting fiction, since it will be revised 1 for 1 with the actual loss ratio. Yet the apparent

¹⁷ A small amount of insurance risk would have to be retained to pass the transfer of risk tests in SFAS 113 and SSAP No. 62.

written premium to surplus ratio of 1.43 at inception provides the relief which the ABC Insurance Company needs.¹⁸

These scenarios illustrate the potential use of high reinsurance commission rates or high provisional commission rates to circumvent statutory accounting intentions and portray higher premium to surplus ratios than is warranted by the economics of the business. The Part 3 footnote identifies instances of high reinsurance commission rates, so that the state regulator can re-examine the reinsurance treaties involved. Each case may be different, and no set rules are prescribed.

Part 4: Aging of Ceded Reinsurance

SUMMARY

Before 1989, there was no statutory penalty for authorized reinsurance, regardless of its presumed collectibility. In 1989, a statutory penalty for loss recoverables more than 90 days past due and for all recoverables from slow-paying (“triggering”) authorized reinsurers was implemented, and a payment schedule was added to Part 1A of Schedule F. In 1993, the aging schedule was revised, the aging rules were changed, and the aging exhibit was made into the current Part 4. The aging schedule determines the percentage of the reinsurer’s loss recoverables that are more than 90 days past due and whether the reinsurer should be classified as slow-paying, thereby triggering the provision for reinsurance in Part 7 of Schedule F.

THE DUE DATE

Non-insurance commercial contracts generally specify the date by which payment must be made. Traditionally, many reinsurance treaties were “gentlemen’s agreements.” They relied on the contracting parties to remit funds as the liabilities emerged, without specifying payment dates. The complexities of reinsurance agreements and the reliance on the “utmost good faith” of the contracting parties argued against specific payment schedules in the contracts.

In addition, ceding companies may not always bill their reinsurers immediately for small losses. They may wait until the recoverables accumulate above a certain level, such as \$50,000, and then bill the reinsurer for the total amount.

¹⁸ In theory, the ABC Insurance Company must set up a statutory liability of \$22 million for potential return commission. It would be difficult for regulators to recognize the need for this statutory liability, and a financially distressed company may be unlikely to post it voluntarily.

To accommodate these attributes of reinsurance agreements, the Annual Statement Instructions say:

For purposes of completing Columns 5 through 9, a paid loss and paid loss adjustment expense recoverable is due pursuant to original contract terms (as the contract stood on the date of execution).

Where the reinsurance agreement specifies or provides for determination of a date at which claims are to be paid by the reinsurer, the aging period shall commence from that date.

Where the reinsurance agreement does not specify a date for payment by the reinsurer, but does specify or provide for determination of a date at which claims are to be presented to the reinsurer for payment, the aging period shall commence from that date.

Where the reinsurance agreement does not specify or provide for the determination of either of such dates, the aging period shall commence on the date on which the ceding company enters in its accounts a paid loss recoverable which, with respect to the particular reinsurer, exceeds \$50,000. If the amount is less than \$50,000 it should be reported as currently due.

Examples of Due Dates

The following scenarios illustrate the Annual Statement Instructions:

1. The reinsurance contract may specify a date by which time recoverables are due, such as "thirty days from the time of notice to the reinsurer." Suppose that
 - A loss occurs on March 15;
 - The loss is paid by the ceding company on August 15;
 - The ceding company bills the reinsurer on September 15 (the date of notice); and
 - The reinsurance contract specifies that recoverables are due within thirty days of the time of notice.

The recoverable is due on October 15. If it is not paid by December 31, the recoverable is 75 days (two and a half months) overdue.¹⁹

2. Suppose the dates of loss occurrence, payment, and billing as the same as above, but the reinsurance contract does not specify a date by which time recoverables are due. Instead,

¹⁹ For simplicity, we use an assumption of 30 day months in this illustration. The actual statutory rules have no such assumption, and an exact day count is (presumably) intended.

the reinsurance contract says that claims are to be presented to the reinsurer for payment within 30 days of the date the loss is paid by the ceding company. The recoverable is due on September 15. If it is not paid by December 31, the recoverable is 105 days (three and a half months) overdue.²⁰

3. Suppose the reinsurance contract specifies neither the due date nor the presentation date. Moreover, suppose the loss was for \$100,000, and when the ceding company paid the claim, it entered on its books a paid loss recoverable of \$100,000. The aging period starts from August 15. If the recoverable is not paid by December 31, the recoverable is 135 days (four and a half months) overdue.
4. Suppose the facts are as described in the paragraph above, but the loss was for \$15,000, and it was the only loss recoverable from this reinsurer. To avoid excessive transaction expenses for small claims, the ceding company waits until several such claims have accumulated before seeking recovery from the reinsurer, and it does not bill the reinsurer in that year. The claim would remain current through December 31.

SMALL CLAIMS

A small claim remains current as long as the aggregate amount of such claims for a reinsurer remains below \$50,000. However, no claim may remain current for more than one year. The Annual Statement *Instructions* say

Any such amounts so reported [i.e., as currently due] in a prior year's annual statement and is still outstanding as of the date of this annual statement must be reported under Column 9 and included in Column 10.

Any item listed as a loss recoverable in the 20XX Annual Statement – whether as currently due or as overdue – and still unpaid by the reinsurance company at December 31, 20XX+1 must be reported as overdue more than 120 days (i.e., Column 9 of Part 4) in the 20XX+1 Annual Statement.

REINSURANCE INTERMEDIARIES

Direct writing reinsurers have their own (captive) agency force; independent agency reinsurers use brokers and reinsurance intermediaries. When a broker or a reinsurance intermediary is involved, the ceding company's dealings may be with the broker or the intermediary, not with the reinsurance company. In such cases, notification of the claim or presentation of the

²⁰ The specified presentation date become the due date. An earlier draft of this statutory rule set the due date as 30 days after the specified presentation date. This accounts for the "more than 120 days past due" column in Schedule F, Part 4; see footnote 21

claim to the broker or intermediary is equivalent to notification or presentation to the reinsurance company.

THE AGING SCHEDULE

Part 4 of Schedule F shows the following numerical columns:

Column 5.	Currently due recoverables (i.e., not yet overdue)
Column 6 – 10.	Overdue recoverables
Column 6.	1 to 29 days
Column 7.	30 to 90 days
Column 8.	91 to 120 days
Column 9.	Over 120 days
Column 10.	Total overdue (cols. 6 + 7 + 8 + 9)
Column 11.	Total due (cols. 5 + 10)
Column 12.	Percentage overdue (col 10 ÷ col. 11)
Column 13.	Percentage more than 120 days overdue (col. 9 ÷ col. 11)

Columns 12 and 13 show the percentages of loss recoverables that are overdue (i.e., not current) and that are overdue more than 120 days. For the statutory provision for reinsurance, the relevant ratio is the percentage more than 90 days overdue; see Part 5, column 13 and Part 6, column 4). These amounts are used to determine the statutory penalty for overdue recoverables and to determine whether the reinsurer should be classified as slow-paying (see below). Column 13 in Part 4, which shows the percentage more than 120 days overdue, is not used in the statutory calculations.²¹

We explain the use of the aging schedule in the discussion below of Schedule F, Part 6.

²¹ The column 13 ratio is included because the aging schedule for certain recoverables was speeded up by 30 days in 1993 compared to 1992. The industry advisory committee to the NAIC reinsurance study group recommended that the cutoff date for the statutory provision be increased from 90 days to 120 days. The NAIC study group kept the cutoff date at 90 days, but it provided columns to monitor the difference between a 90 day and a 120 day cutoff date.

The Statutory Provisions for Reinsurance

Statutory accounting imposes "provisions" (or penalties) for certain types of reinsurance recoverables:

- unsecured recoverables from unauthorized reinsurers,
- unsecured recoverables from slow-paying (authorized) reinsurers,
- overdue recoverables from both authorized and unauthorized reinsurers, and
- recoverables in dispute from unauthorized reinsurers and from non-slow-paying authorized reinsurers.

These statutory provisions for reinsurance appear on line 15 of page 3 of the Annual Statement: "15. Provision for reinsurance (Schedule F, Part 7)."

On the statutory balance sheet, reinsurance recoverable on paid losses and loss adjustment expenses is shown as an asset (line 14 of page 2). Reinsurance recoverable on unpaid losses and loss adjustment expenses is shown as a contra-liability to gross unpaid losses and loss adjustment expenses (lines 1 and 3 of page 3). Ceded unearned premium reserves are shown as a contra-liability to gross unearned premium reserves (line 9 of page 3). The provision for reinsurance is a liability that relates to all of these items.

The provision for reinsurance does not affect the loss reserves on line 1 of page 3, which are net of all reinsurance. It does not affect the loss reserves in the Underwriting and Investment Exhibit or in Schedule P, where no distinctions are made between authorized and unauthorized reinsurers and between slow-paying and non-slow-paying authorized reinsurers.

The provision for reinsurance serves as a minimum bound for uncollectible reinsurance.²² If the reporting company believes that the uncollectible reinsurance recoverables are greater than the Schedule F provision for reinsurance, it must hold the full estimated uncollectible amount as its provision for reinsurance.²³

²² SSAP No. 62, "Reinsurance," paragraph 52, makes this explicit: "The . . . Provision for Overdue Reinsurance provides for a minimum reserve for uncollectible reinsurance with an additional reserve required if an entity's experience indicates that a higher amount should be provided." But see page 84 for a more critical analysis of this issue.

²³ The Annual Statement *Instructions* say that "if the company's experience indicates that a higher amount should be provided, such higher amount should be entered."

The year to year change in the provision for reinsurance is a direct charge or credit to surplus; it does not flow through the statutory income statement.²⁴

By reducing statutory surplus, the provision for reinsurance also reduces risk-based capital adjusted surplus and lowers the risk-based capital ratio.²⁵

GAAP financial statements have no provision for reinsurance. GAAP statements show all reinsurance recoverables as assets, not as contra-liabilities, and they reduce the assets for expected uncollectible amounts, just as for other receivables. Similarly, the A. M. Best rating agency removes the provision for reinsurance from net liabilities when calculating its adjusted leverage ratios.²⁶

Note 22D to the statutory financial statements, "Uncollectible Reinsurance," discloses "uncollectible reinsurance written off during the year" by reinsurer, in four categories: (i) losses incurred, (ii) loss adjustment expenses incurred, (iii) premiums earned, and (iv) other. (See the Annual Statement *Instructions* and SSAP No. 62, "Reinsurance," paragraph 67). The

²⁴ SSAP No. 62, "Reinsurance," paragraph 52, says: "The minimum reserve Provision for Reinsurance is recorded as a liability and the change between years is recorded as a gain or loss directly to unassigned funds (surplus)."

Statutory accounting is more complex if the company holds an additional reserve. The SSAP says that "any reserve over the minimum amount shall be recorded on the statement of income by reversing the accounts previously utilized to establish the reinsurance recoverable." The provision for reinsurance remains a direct charge or credit to surplus. The excess of the estimated uncollectible amount over the statutory provision for reinsurance flows through the income statement. For example, if the statutory provision for reinsurance is \$10 million but the reporting company holds a \$15 million liability instead, the excess \$5 million portion flows through the income statement. It is a part of underwriting income, since it "reverses the accounts previously utilized to establish the reinsurance recoverable"; it is not a component of other income.

Glenda Channel, Finance Reporting Manager of the NAIC, has pointed out to me that the statutory accounting rules are not consistent. The "excess portion" flows through the income statement. But the entire estimated uncollectible amount replaces the provision for reinsurance on line 15 of page 3. The change in the amount recorded on line 15 of page 3 from the previous year to the current year is a direct charge or credit to surplus. The excess portion is thereby counted twice: once as an income statement flow and once as a direct charge.

Ms. Channel notes that "the Annual Statement Instructions (or cross references) might need to be modified" (email, 26 November 2001). In the meantime, companies should avoid this double charge to surplus by choosing whether to run the excess amount through the income statement or accounting for it as a direct charge to surplus.

²⁵ The provision for reinsurance slightly reduces the risk-based capital requirements, since only reinsurance recoverables that are not offset by the provision for reinsurance are "subject to RBC." This effect is minor; it does not change the statement in the text. See page 29 below for a more complete discussion of the risk-based capital effects of the provision for reinsurance.

²⁶ See the introduction to Best's *Key Rating Guide*.

amount of such write-offs is not directly related to the provision for reinsurance. However, the write-offs are a check on the adequacy of the company's provision for reinsurance. A company with write-offs consistently exceeding its provision for reinsurance may be underestimating its future liabilities.

The company's Appointed Actuary must discuss reinsurance collectibility and its potential effect on loss reserve adequacy in the Statement of Actuarial Opinion. The Appointed Actuary should use the Schedule F exhibits as one source of information on potential collectibility problems. The NAIC *Instructions* to the Statement of Actuarial Opinion, section 11, say

Before commenting on reinsurance collectibility, the actuary should solicit information from management on any actual collectibility problems, review ratings given to reinsurers by a recognized rating service, and examine Schedule F for the current year for indications of regulatory action or reinsurance recoverable on paid losses over 90 days past due.

An estimate of uncollectible reinsurance is distinct from the statutory provision for reinsurance. There may be a large provision for reinsurance despite no anticipated reinsurance collectibility problem.

Relationships

The relationships among the statutory liability, the contra-asset, and the disclosures are summarized below.

1. Prospective vs retrospective:

- i. Note 22 to the financial statements is a retrospective disclosure, identifying the statutory write-off during the past year for uncollectible reinsurance recoverables.
- ii. The provision for reinsurance, the GAAP offset for expected uncollectible recoverables, and the actuary's disclosure in the Statement of Actuarial Opinion are prospective estimates.

2. Basis of Estimate:

- i. Note 22 is an objective accounting fact.
- ii. The Schedule F provision for reinsurance is a formula driven figure.
- iii. The GAAP financial statements provide management's best estimate of future reinsurance uncollectibility.
- iv. The Statement of Actuarial Opinion is the Appointed Actuary's estimate of future reinsurance uncollectibility. Although the Appointed Actuary may be an officer of the company, and the Appointed Actuary should take into account the views of company management regarding potential uncollectible reinsurance recoverables, the actuary's

opinion is an independent professional view which may not agree with management's opinion.

SAP-GAAP Accounting Philosophies

The GAAP vs. statutory accounting approach to measuring the potential uncollectibility of reinsurance recoverables reflects the different underlying philosophies of these accounting systems.

GAAP

The primary goal of GAAP financial statements is to provide potential investors in the corporate enterprise, whether equityholders or creditors, with unbiased information about future expected income. The company's management is the source of most GAAP estimates; this is also true for estimates of uncollectible reinsurance recoverables.

The estimate is audited by an independent accountant. Misrepresentation by management is constrained by the potential lawsuits that such action might cause. Potential investors are assumed to be sufficiently sophisticated that they can interpret and evaluate management estimates. GAAP emphasizes going-concern enterprises, since these are the enterprises of most interest to investors.

STATUTORY ACCOUNTING

The primary goal of statutory financial statements is to assure policyholders that the insurance obligations will be fulfilled. This is particularly important for policyholders of companies in financial distress. Since these companies have incentives to avoid disclosure of uncollectible accounts or similar financial problems, statutory accounting relies heavily on formulas, not on management estimates alone. The formulas are generally conservative; they are intentionally biased, and they are not best estimates.

Most policyholders are unsophisticated. They are unable to independently evaluate management actions or disclosures, and they pose little threat of lawsuits for intentional misrepresentation. Regulators serve as the policyholders' agents to monitor the financial statements of potentially distressed companies. Statutory accounting emphasizes run-off accounting, since the danger to policyholders comes from expiring companies, not from continuing companies.

The chart below summarizes the differing objectives of GAAP and statutory accounting.

	<i>GAAP</i>	<i>Statutory Accounting</i>
audience served	investors	policyholders
focus (topic)	future profitability	current obligations
focus (financial statement)	income statement	balance sheet
nature of estimate	unbiased	conservatively biased
basis of estimate	company management	statutory formula
users	sophisticated	not as sophisticated
companies targeted	going concern companies	cos. in financial distress

Federal Income Taxes

The provision for reinsurance is a statutory liability, not a statement liability. It appears on the statutory balance sheet, but the change in the provision for reinsurance does not flow through the statutory income statement.

The change in the provision for reinsurance from the previous year to the current year appears as a direct charge or credit to policyholders' surplus on page 4, line 26. An increase in the provision for reinsurance from last year to the current year causes a decrease in policyholder surplus, and a decrease in the provision for reinsurance from last year to the current year causes an increase in policyholder surplus.

A change in the provision for reinsurance has no effect on taxable income, just as it has no effect on statutory income or GAAP income. Thus, a change in the provision for reinsurance causes a timing (temporary) difference between the statutory balance sheet and the implied tax balance sheet.

In other cases, an increase in a non-admitted asset causes an addition to the deferred tax asset on the statutory balance sheet, like other increases in timing differences between statutory income and taxable income. We illustrate with examples. In all scenarios, the insurance company writes a policy on July 1, 20XX for a premium of \$1,000, with a \$200 commission paid on July 1.

1. *Revenue Offset:* Statutory income for 20XX is earned premium of \$500 – commission expense of \$200 = \$300. Taxable income for 20XX adds revenue offset of $20\% \times \text{change in unearned premium reserve}$ or $20\% \times \$500 = \100 , so taxable income = \$400. The

federal income tax on the \$100 difference between taxable income and the income that is implied by the statutory balance sheet is $35\% \times (\$400 - \$300) = \$35$. The deferred tax asset on the statutory balance sheet is \$35.

2. *Agents' Balances:* Suppose that the entire net premium of \$1,000 – \$200 = \$800 was due on July 1, 20XX, but the agent remitted only \$650. The remaining \$150 is more than 90 days past due and it is not admitted on the statutory balance sheet. The taxable income for 20XX remains \$400. The income implied by the statutory balance sheet is derived as follows:

- Cash received = \$650
- Unearned premium reserve = \$500
- Income implied by statutory balance sheet = $\$650 - \$500 = \$150$

The income shown on the statutory income statement is \$300, not \$150. The calculation of the deferred tax asset relies on the income *implied* by the statutory balance sheet, not the income shown on the statutory income statement.²⁷ The difference between taxable income and implied statutory income is $\$400 - \$150 = \$250$. The deferred tax asset is $35\% \times \$250 = \87.50 .

3. *Provision for Reinsurance:* Suppose that the company included this policy under its 60% proportional reinsurance treaty. A loss of \$100 occurs on July 15, which the primary company pays on August 1. It enters the reinsurance recoverable of \$60 on its ledger on that date as well, but the recoverable is not paid by the reinsurer until the next year. The recoverable is more than 90 days past due by December 31, and a provision for reinsurance of \$12 is set up.²⁸ The taxable income from this loss is $-\$100 + \$60 = -\$40$. The income implied by the statutory balance sheet is derived as follows:

- Cash paid (loss paid) = \$100
- reinsurance recovered (asset) = \$60
- Provision for reinsurance (statutory liability) = \$12
- Income implied by the statutory balance sheet = $-\$100 + \$60 - \$12 = -\52 .

Following the reasoning in the previous examples, we should say that the difference between taxable income and the income implied by the statutory balance sheet is $-\$40 - (-\$52) = \$12$.

²⁷ The deferred tax assets and liabilities depend on the timing difference between actual taxable income and the statutory income implied from the statutory balance sheet. This is identical to the timing differences between the actual statutory balance sheet and the balance sheet entries implied by taxable income. The latter definition – the “balance sheet perspective” – is the definition used by the FASB.

²⁸ For simplicity, we are working with small numbers, and we ignore the \$50,000 minimum for overdue claims. Assume that there are other loss recoverables from this reinsurer whose total exceeds \$50,000.

The federal income tax on this amount is $35\% \times \$12 = \4.20 , which ought to be shown as a deferred tax asset.

This is *not* the procedure actually used by statutory accounting. SSAP No. 10, "Income Taxes," section 6B, specifically excludes the provision for reinsurance (the Schedule F penalty) from affecting deferred tax assets or liabilities:

Temporary differences include unrealized gains and losses and nonadmitted assets but do not include asset valuation reserve (AVR), interest maintenance reserve (IMR), Schedule F penalties . . .

The rationale for this treatment is that the provision for reinsurance – like the asset valuation reserve and the interest maintenance reserve – is a policyholder safeguard, not a timing difference. It may be necessary for companies in financial distress and inclined to dissemble in their estimates of reinsurance collectibility, but it is unduly conservative for most companies. Statutory accounting does not anticipate a different timing of the reinsurance payment pattern than tax accounting anticipates. The tax on the reinsurance recoverable is not expected to reverse in future years. Rather, the provision for reinsurance for a particular reinsurance contract is expected to diminish as the recoverables are collected and the need for conservative valuation dissipates.

The same is true for the asset valuation reserve and the interest maintenance reserve. They do not reflect a different statutory perspective on the actual value of financial assets. They serve to safeguard the company's ability to pay claims even in adverse financial scenarios. For all of these items, a deferred tax asset would simply reduce the conservatism of the statutory balance sheet.

RISK-BASED CAPITAL REQUIREMENTS

The NAIC's risk-based capital formula sets capital requirements for property-casualty insurance companies based on the amounts and types of risk that they face. To guard against the potential uncollectibility of reinsurance recoverables, the risk-based capital formula includes a risk charge equal to 10% of reinsurance recoverables "subject to RBC."

An admitted reinsurance recoverable increases policyholders' surplus, and the provision for reinsurance reduces policyholders' surplus. If surplus has been reduced by the provision for reinsurance, there is no need to set a capital requirement for the collectibility of the reinsurance recoverables involved. Contrast the two scenarios below.

- If the primary company has a \$1 million loss recoverable from a quick-paying authorized reinsurer, and if the recoverable is *not* 90 days or more past due, the full \$1 million offsets the gross loss reserve and increases policyholders' surplus. The RBC formula imposes a risk charge of \$100,000 to guard against the possibility that the recoverable may not be collected. This risk charge is not the expected uncollectible amount, and it is not a minimum bound for this amount. The risk charge is the potential uncollectible amount in an (unanticipated) adverse scenario.
- If the primary company has a \$1 million unsecured loss recoverable from an unauthorized reinsurer, the full \$1 million is included in the provision for reinsurance. The loss recoverable does not increase policyholders' surplus, and there is no need for a risk charge to guard against potential collectibility problems in adverse scenarios.

Reinsurance recoverables subject to RBC equal the total recoverables minus the provision for reinsurance (see Feldblum: RBC [1996]). Security held for reinsurance recoverables reduces the provision for reinsurance but it does not reduce the RBC risk charge on the secured recoverables. If the primary company has a \$1 million fully secured loss recoverable from an unauthorized reinsurer, the full \$1 million reduces the net loss reserve and increases policyholders' surplus. Even if the primary company is holding \$1 million as funds withheld from the unauthorized reinsurer, it must hold an additional \$100,000 of capital to satisfy the RBC risk charge.²⁹

²⁹ The ceding company is holding double security for 10% of the recoverables: the funds withheld from the reinsurer and the risk-based capital charge. This is excessive, since the security is greater than the total recoverable. The NAIC justifies this double charge by the disincentive that might otherwise occur to using authorized reinsurers. If secured receivables from unauthorized reinsurers had no risk-based capital charge, ceding companies might be tempted to reinsure their business with unauthorized reinsurers who provided full security; see Feldblum [RBC: 1996].

The covariance adjustment in the property-casualty risk-based capital formula reduces the capital charge for reinsurance recoverables. The risk charges are grouped into six categories, R_0 through R_5 , and the covariance adjustment is a function of these risk categories. The 10% charge for reinsurance recoverables subject to RBC is included in the R_3 (credit risk) category. Half the R_3 charge is moved to the R_4 (reserving risk) category before application of the covariance adjustment.

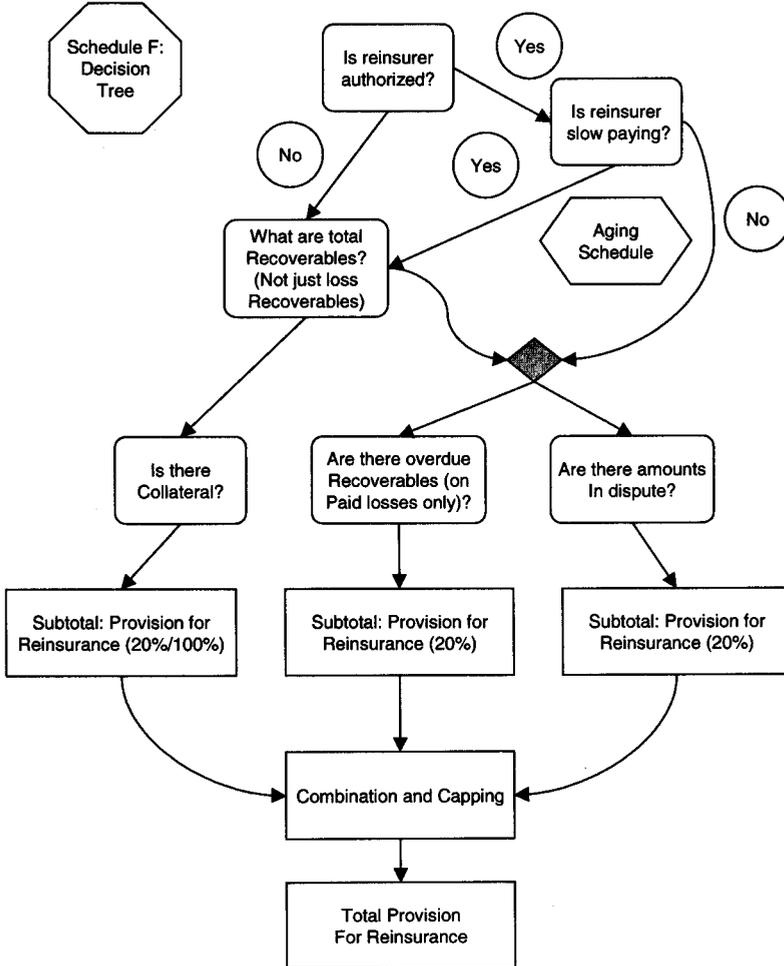
The covariance adjustment reduces the individual category charges in inverse proportion to the size of the category charge. Alternatively stated, the post-covariance marginal effect of the risk charges is in direct proportion to the size of the charges in the risk category.

Illustration: If the R_4 charge is \$100 million for a given company and the R_3 charge is \$20 million, each dollar of R_4 charge has approximately five times the effect on overall capital requirements as each dollar of R_3 charge. If \$1 is added to the R_4 risk charge, the effect on overall capital requirements is about 5 times the effect of adding \$1 to the R_3 risk charge.

For most companies, the reserving risk charge (R_4) is large, so the reduction for covariance is small, while the credit risk charge (R_3) is small, so the reduction for covariance is large. The average reduction is about 90 to 95% for the credit risk charge and about 40 to 50% for the reserving risk charge, giving an overall reduction to the charge for reinsurance recoverables of about 45%. On average, the marginal risk-based capital charge for reinsurance recoverables is about 4.5% of the recoverables subject to RBC, not 10%. See Feldblum (RBC: 1996) for a more complete analysis of the effects of the covariance adjustment.

DECISION TREE

Calculating the provision for reinsurance can be complex. The decision tree below shows the elements that affect the provision for reinsurance:



One objective of this paper is to assist in completion of the Annual Statement blank, so the text of this paper follows the format of the Schedule F exhibits. The exhibits are hard to follow, and the computation of the provision for reinsurance seems complex. In fact, there are only a half dozen decision rules, as the graphic above indicates. The following list summarizes these decision rules.

1. If the reinsurer is not authorized, (i) there is no need to test for speed of payments, (ii) 100% of unsecured recoverables are included in the provision for reinsurance, and (iii) we follow the left hand side of the decision tree graphic. (Only if the reinsurer is authorized do we test for the speed of payment.)
2. If the reinsurer is not authorized, the provision for reinsurance is the sum of three parts:
 - 100% of the unsecured (total) recoverables
 - 20% of the loss recoverables more than 90 days past due
 - 20% of the amounts in dispute

Security has no effect on the provision for reinsurance for loss recoverables more than 90 days overdue and for amounts in dispute.

3. The provision for reinsurance is capped by the amount of total recoverables. Part 5 of Schedule F has a three pronged capping procedure, of which the first two prongs are redundant.
4. If the reinsurer is authorized, we test for speed of payment.
5. If the authorized reinsurer is slow-paying, we treat the slow-paying authorized reinsurer like an unauthorized reinsurer, with three differences.
 - We use 20% of the unsecured total recoverables instead of 100% of the unsecured total recoverables.
 - We use the *greater* of (i) 20% of the unsecured total recoverables (including amounts in dispute) and (ii) 20% of the loss recoverables more than 90 days past due, not the sum of these two parts. There is no need for a capping procedure.
 - We do not examine amounts in dispute separately.
6. If the authorized reinsurer is not slow-paying, the provision for reinsurance is the sum of:
 - 20% of the loss recoverables more than 90 days past due, and
 - 20% of the amounts in dispute.

Part 5: Unauthorized Reinsurers

Part 5 of Schedule F calculates the provision for reinsurance with unauthorized companies. The provision consists of three parts:

- 100% of unsecured (total) recoverables,
- 20% of overdue loss recoverables, and
- 20% of amounts in dispute.

Before 1989, the statutory provision for reinsurance applied only to unsecured *unauthorized* reinsurance recoverables. In 1991, a provision for overdue recoverables from *authorized* reinsurers was added. Security, such as funds withheld and letters of credit, reduced the provision for reinsurance for total recoverables from unauthorized reinsurers, but it did not reduce the provision for reinsurance for loss recoverables over 90 days past due from authorized reinsurers.

Between 1989 and 1991, the only statutory penalty for unauthorized reinsurance was for *unsecured* total recoverables. The provision for recoverables more than 90 days past due from authorized reinsurers applied even if the recoverables were secured. Some authorized reinsurers claimed that they were being penalized more harshly than unauthorized reinsurers if all recoverables were secured. To avoid a possible disincentive to using authorized reinsurance, the provision for recoverables more than 90 days past due was added for unauthorized reinsurers as well.

Recoverables in dispute are not considered overdue, since the cause for non-payment is uncertainty about the reinsurer's liability, not tardiness. Regulators noted that a ceding company could avoid the penalty for overdue recoverables by classifying the recoverables as "in dispute."³⁰ A provision of 20% of recoverables in dispute was therefore added in 1993.

Penalty for Unsecured Recoverables

Part 5 shows the following figures for unauthorized reinsurers.

- Column 5 shows total recoverables, consisting of net unearned premiums, all loss recoverables, and all commissions. This figure should agree with the corresponding entry in column 15 of Part 3 of Schedule F for unauthorized reinsurers.

Columns 6 through 10 show the funds securing the recoverables, consisting of

³⁰ Written notification by the reinsurer that it disputed the claim is sufficient to classify the recoverable as an amount in dispute; actual litigation or arbitration proceedings are not necessary.

- funds held by the company under reinsurance treaties (column 6),
- letters of credit (column 7),
- ceded balances payable (column 8),
- miscellaneous balances (column 9), and
- other allowed offset items (column 10).

Column 11 is the sum of columns 6 through 10. The amount of securitizing funds is capped at the amount of recoverables; that is, column 11 may not exceed column 5. Column 5 minus column 11, shown in column 12, is the amount of unsecured recoverables from unauthorized reinsurers.

Securing agreements are not fail-safe. The subdivision by type of credit allows the reader to better analyze the types of securing funds held by the primary company on behalf of unauthorized reinsurers.³¹ Funds withheld are better security than letters of credit, for several reasons:

- The bank issuing the letter of credit may not renew its obligation if the reinsurer's financial condition deteriorates.

Illustration: A reinsurer obtains a one-year letter of credit on February 1, 20XX, when it is financially healthy. A hurricane in September 20XX produces severe losses for the reinsurer, and impairs its financial condition. Its old recoverables are secured by the letter of credit, and no provision for reinsurance is imposed on the 20XX Annual Statements of its reinsured companies. On February 1, 20XX+1, the bank that issued the letter of credit declines to renew it, leaving the ceding companies exposed to potential collectibility problems.

Statutory accounting requires that the letter of credit be "evergreen" in order for it to offset the provision for reinsurance. That is, the letter of credit must contain a provision that the issuing bank may not decline to renew it as long as the recoverables remain outstanding.

- If a reinsurer with a letter of credit becomes insolvent, the bank that issued the letter of credit may claim that the letter of credit is invalidated by misrepresentations made by the reinsurer on the application. The ceding company must examine the letter of credit carefully to verify that it is not contingent upon the veracity of representations made by the reinsurance company.

Overdue Recoverables

³¹ For an example of potential problems with letters of credit, see Greene [1988]. Howard W. Greene, "Retrospectively-Rated Workers Compensation Policies and Bankrupt Insureds," *Journal of Risk and Insurance*, Volume 7, No. 1 (September 1988), pages 52-58.

The amount of overdue recoverables *not in dispute* are shown in column 13 of Part 5: "Recoverable paid losses and LAE expenses over 90 days past due not in dispute." 20% of recoverables that are more than 90 days past due are subject to a provision for reinsurance, whether or not they are secured. The number of days the recoverables are overdue is based on the aging schedule in Part 4 of Schedule F.

The total provision for reinsurance may not exceed the total reinsurance recoverables. Schedule F implements this upper bound by specifying that the provision for recoverables more than 90 days past due may not exceed the amount of funds securitizing the total recoverables.

Illustration: Suppose that there are \$100 million of recoverables from an unauthorized reinsurer, \$50 million of which are more than 90 days past due, and there are letters of credit totaling \$5 million. The amount of unsecured recoverables is \$100 million – \$5 million = \$95 million, and twenty percent of the overdue amount is \$10 million. Without the cap, the total provision for reinsurance would be \$105 million, which is unreasonable since the total recoverables are only \$100 million. The penalty for overdue recoverables is therefore limited to the amount of securitizing funds, so the total penalty in this case is \$100 million (= \$95 million + \$5 million).³²

The provision is shown in columns 14 and 15. Column 14 shows 20% of the recoverables more than 90 days past due in column 13. Column 15 shows the "smaller of col. 11 (= total security) or col. 14."

Amounts in Dispute

Amounts in dispute are not included in column 13 (the recoverables more than 90 days past due), but they are included in column 5 (the total recoverables). "Dispute" is defined as litigation, arbitration, or notification, where notification means "a formal written communication from a reinsurer denying the validity of coverage" (NAIC Annual Statement *Instructions* and SSAP No. 62). The treatment of amounts in dispute is the same as the treatment of loss recoverables more than 90 days past due: 20% of the amounts in dispute are included in the provision for reinsurance.

As is true for loss recoverables more than 90 days past due, the provision for reinsurance for amounts in dispute is limited by the amount of securing funds. The penalty is shown in column 16: "Smaller of col. 11 or 20% of amount in dispute included in col. 5." (Column 11 is the amount of securing funds.)

³² By limiting the provision for reinsurance for overdue amounts to the amount of security, the total provision for reinsurance is limited to the total recoverables.

Security does not offset the provisions for amounts in dispute or for recoverables more than 90 days past due. Security guarantees that insolvency of the reinsurer will not prevent payment of the claim.

- If the reinsurer does not admit liability for the claim, the security is not applicable to that claim.
- If the recoverable is more than 90 days past due, we presume that the reinsurer may deny liability for the claim, rendering the security worthless.

Column 17 shows the sum of the three provisions: unsecured total recoverables, 20% of recoverables more than 90 days past due, and 20% of amounts in dispute. This sum is limited by the total recoverables. Column 17 reads:

"Total provision for unauthorized reinsurance: smaller of column 5 (= total recoverables) or columns 12 + 15 + 16 (= the sum of the three provisions for reinsurance)."³³

- Column 5 is the total recoverables.
- Column 12 is the unsecured recoverables.
- Column 15 is 20% of the recoverables more than 90 days past due.
- Column 16 is 20% of the amounts in dispute.

This penalty is carried to footnote (6) of Part 7: "Provision for unauthorized reinsurance: Schedule F – Part 5, column 17 × 1000." Part 5 of Schedule F is in thousands of dollars whereas the provision for reinsurance is in dollars, so Part 5, column 17 is multiplied by a factor of 1000.

³³ The limitation in column 17 makes the limitations in columns 15 and 16 redundant. Schedule F grew incrementally, with different provisions being added one by one. Sometimes the final calculation makes an intermediate step unnecessary.

ILLUSTRATIONS

The provision for reinsurance is a fixed formula that is easily applied. The chart below shows several examples. Figures are in thousands of dollars.

Reinsurer:	A	B	C
1. Total Recoverables	\$1,000	\$1,000	\$1,000
2. Securing Funds	\$0	\$1,200	\$600
3. Provision for reinsurance (#1)	\$1,000	\$0	\$400
4. Recoverables > 90 days due	\$200	\$200	\$200
5. Provision for reinsurance (#2)	\$40	\$40	\$40
6. Amounts in dispute	\$100	\$100	\$100
7. Provision for reinsurance (#3)	\$20	\$20	\$20
8. Total provision for reinsurance (uncapped)	\$1,060	\$60	\$460
9. Total provision for reinsurance (capped)	\$1,000	\$60	\$460

- ◆ Line 1 includes unearned premium reserves, contingent commissions, loss recoverables on paid losses, and loss recoverables on unpaid losses.
- ◆ Line 2 includes all securing funds. The offset is limited to the total recoverables from that reinsurer. Securing funds from one reinsurer can not offset the provision for reinsurance for another reinsurer.
- ◆ Line 3: The first provision for reinsurance is the unsecured total recoverables, bounded below by \$0.
- ◆ Line 4 shows loss recoverables more than 90 days past due.
- ◆ Line 5: The second provision for reinsurance is 20% of the loss recoverables more than 90 days past due. Part 5 of Schedule F applies the capping procedure three times, beginning with this line. The chart applies the capping procedure a single time at the end.
- ◆ Line 6 shows the amounts in dispute. The amounts in dispute are also included in line 1, the total recoverables. The recoverables on line 1 are offset by securing funds. The amounts in dispute on line 6, like the loss recoverables more than 90 days past due, are not offset by securing funds.

- ◆ Line 7: The third provision for reinsurance is 20% of the amounts in dispute.
- ◆ Line 8: The total provision for reinsurance is the sum of the three pieces on lines 3, 5, & 7.
- ◆ Line 9: The total provision for reinsurance is capped by the amount of total recoverables.

Part 6: Overdue Authorized Reinsurance

Part 6 of Schedule F calculates the statutory provision for recoverables more than 90 days past due from authorized reinsurers that are *not* classified as slow-paying.^{34 35}

Recoverables that are more than 90 days past due are treated equally among all reinsurers, whether authorized or unauthorized and whether slow-paying or not slow-paying. The provision for reinsurance is 20% of these amounts, and security has no effect on the statutory liability. With regard to other recoverables, authorized reinsurers are similar to unauthorized reinsurers only if they are slow-paying authorized reinsurers, though their provision for reinsurance is 20% of the total unsecured recoverables, not 100% of the total unsecured recoverables.

The percentage of loss recoverables more than 90 days past due is calculated for each authorized reinsurer. This percentage is the ratio of the following two amounts:

- loss recoverables more than 90 days overdue to
- all recoverables on paid losses and loss adjustment expenses plus amounts received in the last 90 days of the statement year.

This "overdue ratio" is shown in column 7. If the ratio is 20% or greater, the reinsurer is classified as slow-paying; otherwise, the reinsurer is not slow-paying.³⁶

The data used to calculate this ratio are reported in columns 4, 5, and 6. Recoverables on paid losses and LAE that are more than 90 days past due are shown in column 4 and total recoverables on paid losses and LAE are shown in column 5. Amounts in dispute are excluded from both the overdue recoverables and from the total recoverables. The recoverables more than 90 days past due in column 4 of Part 6 equal the sum of the entries in Part 4, column 8 ["91 to 120 days overdue"] and Part 4, column 9 ["Over 120 days overdue"]

³⁴ The Annual Statement provides no term to differentiate slow-paying authorized reinsurers. Robert Graham has noted to me that the industry advisory committee to the NAIC reinsurance study group used the term "triggering company" to indicate a company that exceeds the 20% test and *triggers* an additional statutory provision for reinsurance.

³⁵ The subtitles for Parts 6 and 7 of Schedule F are not helpful for understanding their content. The Part 6 subtitle reads "provision for overdue authorized reinsurance," and the Part 7 subtitle reads "provision for overdue reinsurance." From the Annual Statement *Instructions* and the column captions, the reader can discern that authorized reinsurer that are slow-paying are included in Part 7 and authorized reinsurers that are not slow-paying are included in Part 6.

³⁶ If the overdue ratio is exactly 20%, the reinsurer is classified as slow-paying.

minus the amounts in dispute [see footnote (a) in Part 6]. The total recoverables in column 5 of Part 6 equal the sum of the entries in Part 3, column 7 ["Recoverables on paid losses"] and Part 3, column 8 ["Recoverables on paid LAE"] minus the amounts in dispute [see footnote (b) in Part 6].

The recoverables received in the last 90 days of the statement year, as reported in column 6, are not shown elsewhere in the Annual Statement.

ILLUSTRATION: Suppose that

- The primary company collected \$15 million in loss and loss adjustment expense payments from a reinsurer between October 1, 20XX, and December 31, 20XX.
- The remaining recoverables on paid losses and loss adjustment expenses on December 31, 20XX from this reinsurer are \$75 million.
- Of these recoverables, \$25 million are more than 90 days past due.

The ratio in column 7 of Part 6 is $[\$25 \text{ million} \div (\$75 \text{ million} + \$15 \text{ million})] = 27.78\%$. This reinsurer would be classified as slow-paying.

INCENTIVES

The purpose of including the "amounts received in the prior 90 days" in the denominator of the test ratio described above is to avoid discouraging the settlement of reinsurance claims. Suppose that on December 15, a primary company has \$10 million of recoverables on paid losses from a reinsurer. Half of the recoverables (\$5 million) are for routine claims; none of these is more than 90 days overdue. Half of the recoverables are for more complex claims. Of these, \$1.5 million are more than 90 days overdue.

In this scenario, only 15% of the recoverables are more than 90 days overdue. On December 15, the reinsurer would not be classified as slow-paying. Now suppose that the reinsurer, seeking to settle its accounts by the end of the year, pays \$5 million to the primary company to settle the routine claims in the last two weeks of December. It leaves \$5 million of recoverables of which \$1.5 million are more than 90 days past due, for a 30% overdue ratio.

This is a common scenario, since many companies settle routine accounts by year end. By speeding up the payments on the routine claims, the reinsurer moved from a 15% overdue ratio to a 30% overdue ratio. The ceding company would prefer to delay the settlement of these claims to avoid the provision for reinsurance and the reduction in policyholders' surplus.

To encourage companies to settle reinsurance accounts, the NAIC incorporated the "amounts received in the prior 90 days" in the denominator of the test ratio. Payment of claims during the final quarter of the statement year may have a beneficial effect on the test ratio if some of

these claims would have been more than 90 days past due by year end. Payment of claims in the fourth quarter of the statement year can not have an adverse effect on the test ratio.

ILLUSTRATION: The primary company has \$10 million of recoverables on paid losses and LAE from a reinsurer on December 15, of which \$2.5 million are more than 90 days past due. This reinsurer would be classified as slow-paying on December 15. In the last two weeks of December, the reinsurer pays \$5 million to settle claims, including \$1 million of claims that are more than 90 days past due. The overdue ratio at December 31 is \$1.5 million / \$10 million or 15%, and the reinsurer is no longer classified as slow-paying.

For reinsurers that are *not* slow-paying, the provision for reinsurance is 20% of the recoverables that are more than 90 days past due plus 20% of the amounts in dispute that are more than 90 days past due. The column entries in Part 6 of Schedule F are as follows. For reinsurer that are *not* slow-paying, the amounts in column 4 are carried to column 8. The amounts in dispute that are not included in the column 4 total recoverables are shown in column 9. Twenty percent of the column 9 amount is reported in column 10. To this figure is added 20% of the amount in column 8, and the sum is reported in column 11. This penalty is carried to footnote (3) on Part 7.

There is no provision for reinsurance for amounts in dispute that are not yet 90 days past due. A more accurate statement of the provision for reinsurance for authorized reinsurers that are not slow-paying would be "20% of the loss recoverables more than 90 days past due whether or not they are in dispute."³⁷

Since Part 6 includes only authorized reinsurers that are not slow-paying, there is no provision for unsecured total recoverables. The amount of security is not relevant for authorized reinsurers that are not slow-paying, since security has no effect on the provision for overdue recoverables or for amounts in dispute. There is no "capping" procedure on the total provision for reinsurance, since there is no provision for total recoverables.

³⁷ It is not clear if the regulators who designed Schedule F intended any provision for reinsurance for amounts in dispute that are not yet 90 days past due. The comments in the text follow the wording of the Schedule F exhibits.

Part 7: Slow-Paying Authorized Reinsurers

Reinsurers that are slow-paying are treated like unauthorized reinsurers, except that the statutory penalty is the *greater* of 20% of the unsecured recoverables and 20% of the recoverables that are more than 90 days past due, not the sum of these two amounts.

For slow-paying authorized reinsurers, the unsecured recoverables include amounts in dispute. For unauthorized reinsurers and for authorized reinsurers that are not slow-paying, security does not offset the provision for reinsurance for amounts in dispute, since the security does not apply unless the reinsurer admits that it is required to pay the claim. For authorized reinsurers that are classified as slow-paying, security has the same effect on amounts in dispute as on other recoverables. We offer no rationale for this; it may be an oversight in the present format of Schedule F.

The calculations are shown in Part 7 of Schedule F. Columns 4 through 11 have the same format as columns 5 through 12 of Part 5, which computes the provision for reinsurance for unauthorized reinsurers. Column 11 of Part 7 shows the unsecured total recoverables for slow-paying authorized reinsurers, just as column 12 of Part 5 shows the unsecured total recoverables for unauthorized reinsurers. For slow-paying authorized reinsurers, only 20% of this amount is included in the provision for reinsurance. The 20% factor is applied in footnote 2, not in the column entries.

Column 11 of Part 7 is the total unsecured recoverables and column 12 is the "greater of column 11 or Schedule F, Part 4, columns 8 and 9." Part 4, columns 8 plus 9, is the loss recoverables that are more than 90 days past due. The column 12 total is carried to footnote (1), 20% of which is carried to footnote (2). Footnote (2) is the provision for slow-paying authorized reinsurers.

The Provision for Reinsurance

The footnotes in Part 7 show the provisions for reinsurance.

- Footnote 2 shows the provision for slow-paying authorized reinsurers.
- Footnote 3 shows the provision for authorized reinsurers that are not slow-paying.
- Footnote 4 shows the total provision for authorized reinsurers [= footnotes 2 + 3].
- Footnote 5 shows the provision for unauthorized reinsurers.
- Footnote 6 shows the total provision for reinsurance [= footnotes 4 + 5], which is carried to page 3, line 15.

OTHER ESTIMATES

The statutory penalty is a minimum. If the primary company believes that the uncollectible recoverables are more than the statutory provision for reinsurance, it should hold the larger amount instead of the provision for reinsurance.

The change in the provision for reinsurance is a direct charge or credit to surplus on line 26 of page 4; it does not flow through the statutory income statement. If the company books a liability in excess of the provision for reinsurance because it believes that the uncollectible amount is greater than the provision for reinsurance, the excess amount flows through the statutory income statement. See page 22 for a complete discussion of this topic.

RESIDUAL MARKETS

The NAIC *Instructions* regarding Part 4 note that "all recoverables from mandatory pools should be reported . . . as being current." Servicing carriers for residual market pools, as are used for workers' compensation, commercial automobile, and Massachusetts personal automobile, cede the involuntarily written business to the pool. Pools are often slow payers, since they may make only quarterly transactions with servicing carriers and with pool members. The servicing carriers may find that much of the recoverables are more than 90 days past due and would lead to a provision for reinsurance on the statutory financial statements. This would be a disincentive for insurers to act as servicing carriers, thereby exacerbating availability problems in these lines of business. To avoid such problems, the NAIC imposes no statutory reinsurance penalties for business ceded to residual market pools.

Part 8: Restatement of Balance Sheet

Part 8 of Schedule F was added with the 1992 Annual Statement. This exhibit is the statutory counterpart to the accounting changes made by SFAS 113, "Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts," issued in December 1992.

Page 3 of the NAIC statement, the statutory balance sheet, is on a "net of reinsurance" basis. Line 1 of page 3, "losses," shows the loss reserves net of reinsurance recoverable on unpaid losses. Line 9 of page 3, "unearned premiums," is net of unearned premiums for ceded reinsurance.³⁸

An insurer with a \$1,000,000 unpaid loss which is fully reinsured shows a net unpaid loss liability of \$0 on line 1 of page 3. But reinsurance arrangements rarely reduce an insurer's legal liability to claimants. The insurer's obligation to the claimant is independent of the reinsurance transaction.

SFAS 60, which controlled reinsurance accounting on GAAP financial statements until 1993, used the same offsetting of reinsurance recoverables with direct business as statutory accounting uses. SFAS 113, which controls reinsurance accounting after 1992, requires that the insurer show the full \$1,000,000 loss reserve liability, along with a corresponding \$1,000,000 asset for the anticipated reinsurance recoverables. This enables readers of the financial statements to differentiate between

- A \$0 net loss liability consisting of a \$0 direct loss liability and a \$0 recoverable, and
- A \$0 net loss liability consisting of a \$1,000,000 direct loss liability and a \$1,000,000 reinsurance recoverable.

The statutory balance sheet on page 3 of the Annual Statement remains on a net basis. Part 8 of Schedule F shows a restated balance sheet on a gross of reinsurance basis, with the net amount due from reinsurers combined into a single asset.

Part 8 of Schedule F changes the format of the balance sheet to the GAAP format. The reinsurance recoverables are assets, not contra-liabilities. The content of the entries remains the statutory content; the provision for reinsurance remains on the balance sheet.

³⁸ In 1992, Line 10 of page 2, "Agents' balances," showed the balances due from agents net of ceded premium balances due to reinsurers. The 2001 codification changes separated the direct agents' balances asset from the reinsurance balances liability, which is now shown separately on line 11 of page 3.

An Illustration

Statutory accounting for reinsurance can be complex. Let us follow a simplified reinsurance transaction to illustrate the effects on page 2, page 3, and Schedule F, Part 8.

Suppose an insurer writes a commercial automobile policy with a \$10,000 premium on December 31, 2001, and includes the contract under its 40% quota share reinsurance treaty with a non-affiliated authorized reinsurer. It incurs one loss for \$5,000 on October 1, 2002, which it pays on July 1, 2003. It collects the recoverable from its reinsurer on March 1, 2004. For simplicity, assume that all premium is paid on the policy effective date, the primary company incurs no expenses, and there is no reinsurance commission on this treaty.

FIRST YEAR – UNEARNED PREMIUMS

On December 31, 2001, the primary company collects \$10,000 from the insured and pays \$4,000 to the reinsurer. In its 2001 Annual Statement, the company shows \$10,000 of direct premiums in the "Underwriting and Investment Exhibit," Part 2B, "Premiums Written," column 1. It shows \$4,000 of ceded premium in column 5 of Part 2B. The "net premium written" in column 6 of this exhibit is \$10,000 – \$4,000, or \$6,000.

Since the earned premium on December 31, 2001 is \$0, the unearned premium reserve is \$10,000 gross of reinsurance and \$6,000 net of reinsurance. The net unearned premium reserve is carried to page 8, Part 2A, "Recapitulation of all Premiums," and to page 7, Part 2, "Premiums Earned."

SECOND YEAR – LOSS RESERVES

On December 31, 2002, the entire policy premium has been earned, so both the gross and the net unearned premium reserves are \$0. Since a \$5,000 loss was incurred on October 1, 2002, and remains unpaid as of December 31, 2002, there is a gross loss reserve of \$5,000. The primary company has a 40% quota share treaty, so the net of reinsurance loss reserve is \$3,000.

In Schedule P, Part 1C the company shows:

- \$10,000 of "direct and assumed" earned premium in column 2,
- \$4,000 of ceded earned premium in column 3, and
- \$6,000 of net earned premium in column 4.

It shows \$5,000 of "direct and assumed" case basis losses unpaid in column 13, and \$2,000 of ceded unpaid losses in column 14. The net unpaid loss is \$3,000.

Page 11, Part 3A, "Unpaid losses and loss adjustment expenses," shows the direct loss reserve of \$5,000 in column 1, the ceded loss reserve of \$2,000 in column 3, and the net loss reserve of \$3,000 [= \$5,000 – \$2,000] in column 4. The net loss reserve flows through to the "Underwriting and Investment Exhibit," Page 10, Part 3, "Losses paid and incurred," column 5, "net losses unpaid current year."

THIRD YEAR – PAID LOSSES

On December 31, 2003, the primary company has paid \$5,000 to the claimant, but it has not yet recovered any money from the reinsurer. Both the direct and ceded loss reserves on Part 3A of the "Underwriting and Investment Exhibit" (columns 1 and 3, respectively) are set to zero. Part 3 of the "Underwriting and Investment Exhibit," column 1, "losses paid less salvage on direct business," shows \$5,000, while column 3, "reinsurance recovered," shows \$2,000.³⁹ The reinsurance recoverable appears as an asset on page 2, line 14, "Reinsurance recoverable on loss and loss adjustment expense payments," not as a contra-liability.

The gross of reinsurance unearned premium reserve is not shown on these exhibits. The gross of reinsurance loss reserve may be determined from Schedule P, except that the Schedule P definition of reinsurance differs from the Schedule F definition of reinsurance.⁴⁰

³⁹ The "reinsurance recovered" entry is the full recoverable, even though there has been no cash transaction. James Anastasio, Vice President and Treasurer at the American Re-Insurance Company, explains that:

Insurance accounting dictates that an entry be made to reflect the reinsurance recovered regardless of the fact that the cash has not been received. In lieu of cash, a receivable asset is created called "reinsurance receivable on losses and loss adjustment expenses."

Once the entry is posted to reflect this "reinsurance recovered," the contra-liability "reinsurance recoverable on unpaid losses" in the amount of \$2,000 is taken down.

Insurance uses accrual accounting. The occurrence of a loss is an income statement debit, not the payment of the loss. When the loss occurs, the net (of reinsurance) loss reserve is the income statement debit. When the direct loss is paid to the claimant, the loss reserve becomes a paid loss and the offsetting contra-liability called reinsurance recoverable on unpaid losses becomes a reinsurance recovered; there is no effect on the income statement. When the recoverable is collected, the asset called reinsurance recoverable on paid losses becomes an asset called cash; there is no effect on the income statement.

⁴⁰ When an insurance group has an intercompany pooling agreement among affiliated carriers, Schedule P treats the premiums and losses as direct business, not as ceded and assumed business, regardless of which company's paper the business is written on. Schedule F, however, treats the business as ceded and assumed, depending on which company issued the policy. Other exhibits in the Annual Statement follow the Schedule F definition, not the Schedule P definition.

The net figures in Schedule P equal the net figures elsewhere in the Annual Statement, but the "direct and assumed" and the "ceded" figures do not necessarily equal the corresponding figures in other exhibits. For instance, the "net earned premium" in the Schedule P, Part 1 Summary, column 4, line 11 [= current year]

FOURTH YEAR – REINSURANCE RECOVERIES

By December 31, 2004, the primary company has received payment from the reinsurer. The page 2 asset, "Reinsurance recoverable on loss and loss adjustment expense payments," is eliminated, having been replaced by cash (or other assets).

This illustration is used below to explain the entries in the Schedule F, Part 8 exhibit.

THE PART 8 EXHIBIT

Schedule F, Part 8, "Restatement of Balance Sheet to Identify Net Credit for Reinsurance," allows the Annual Statement user to see the effects of ceded reinsurance transactions on the company's balance sheet. All items from pages 2 and 3 are carried to this exhibit, though only the lines most relevant to reinsurance transactions are shown separately. Other lines are combined as "other assets" (line 5 in Schedule F, Part 8) and "other liabilities" (line 15 in Schedule F, Part 8).

Cessions to an involuntary pool or a joint underwriting association are not shown in Part 8. These are programs mandated by state governments to provide coverage for risks that might not otherwise be insured by private insurers. The uncollectibility risk is assumed to be insignificant, since the liabilities of the pools are backed by state assessments on all insurance companies writing business in the state for the line of business handled by the pool.

The involuntary pools for certain lines of business have been large in some years. In the latter half of the 1980's, shortly before Part 8 of Schedule F was formed, the workers' compensation reinsurance pools covered over 25% of the total business in some states. Including the involuntary cessions in Part 8 of Schedule F would have masked the effects of voluntary ceded

should equal the net premiums earned in the current year on page 7, "Underwriting and Investment Exhibit," Part 2, "Premiums Earned," column 4, line 34 [= totals]. The net losses unpaid excluding loss adjustment expenses in the "Underwriting and Investment Exhibit," Part 3A, column 8, line 34 ("totals") should equal the net losses unpaid from the Schedule P, Part 1 Summary, line 12 ("totals"), columns 13 – 14 + 15 – 16. But the component pieces, the "direct and assumed" and the "ceded," may not correspond between Schedule P and the "Underwriting and Investment Exhibit" if there is an intercompany pooling agreement among affiliated carriers. In other words, Schedule P, columns 14 + 16 may not equal the "Underwriting and Investment Exhibit," Part 3B, columns 1 + 2 + 5 + 6. Similarly, Schedule P, columns 14 + 16 may not equal the "Underwriting and Investment Exhibit," Part 3A, columns 3 + 7. According to the Annual Statement *Instructions* to the "Underwriting and Investment Exhibit," the Part 3A, column 3 totals ("reinsurance recoverable from authorized and unauthorized reinsurers") should equal the Schedule F, Part 3, column 9 totals ("reinsurance recoverables on known case loss reserves"), and the Part 3A, column 7 totals ("ceded IBNR losses") should equal the Schedule F, Part 3, column 11 totals ("reinsurance recoverable on IBNR loss reserves"). There are no such references to the ceded amounts in Schedule P. For further discussion, see Sholom Feldblum, "Completing and Using Schedule P," Third Edition, in *Regulation and the Casualty Actuary*, edited by Sholom Feldblum and Gregory Krohm (NAIC, 1997); revised Fourth Edition [2002] available in electronic form on the CAS web site.

reinsurance. The voluntary reinsurance, which has potential collectibility problems, is the important component of the Part 8 disclosure.

Schedule F, Part 8, has the entries shown below. The "Item" numbers refer to the line numbers on pages 2 and 3 of the Annual Statement (the statutory balance sheet). Column 3 of page 2 shows the net admitted assets, or the total assets minus the non-admitted assets.

Restatement of Balance Sheet to Identify Net Credit for Reinsurance

ASSETS (Page 2, column 3)

1. Cash and invested assets (Item 9)
2. Agents' balances or uncollected premiums (Item 10)
3. Funds held by or deposited with reinsured companies (Item 11)
4. Reinsurance recoverables on loss and LAE payments (Item 14)
5. Other assets (Items 11 and 12 and 15 through 24)
6. Net amount recoverable from reinsurers

7. Totals (Item 25)

LIABILITIES (Page 3)

8. Losses and loss adjustment expenses (Items 1 through 3)
9. Taxes, expenses, and other obligations (Items 4 through 8)
10. Unearned premiums (Item 9)
11. Dividends declared and unpaid (Items 10.1 and 10.2)
12. Funds held by company under reinsurance treaties (Item 12)
13. Amounts withheld or retained by company for account of others (Item 13)
14. Provision for reinsurance (Item 15)
15. Other liabilities (Items 14 and 16 through 22)

16. Total Liabilities (Item 23)

17. Surplus as regards policyholders (Item 32)

18. Totals (Item 33)

For each entry, there are three columns:

1. As Reported (net of ceded)
2. Reinsurance Adjustments
3. Restated (gross of ceded)

PURPOSE OF PART 8

Part 8 of Schedule F shows the net effect of ceded reinsurance transactions on the statutory balance sheet. The balance sheet itself shows various entries relating to ceded reinsurance, some of which are placed on separate lines and some of which are offsets to gross figures. Part 8 consolidates all the entries into a single asset, termed "net amount recoverable from reinsurers."

There are four types of adjustments made in Part 8 of Schedule F:

- Some asset entries remain an asset entry, though the name is changed. For instance, the asset called "reinsurance recoverables on loss and LAE payments" is shifted into "net amount recoverable from reinsurers."
- Contra-liabilities resulting from ceded reinsurance are changed into assets. For instance, the reinsurance recoverable on unpaid losses, which is an offset to unpaid losses on page 3 of the Annual Statement, is added to the "net amount recoverable from reinsurers."
- Liabilities stemming from ceded reinsurance, such as the "funds held by company under reinsurance treaties," are *offsets* to the "net amount recoverable from reinsurers."
- On the statutory balance sheet, the provision for reinsurance counter-balances the assets or contra-liabilities stemming from ceded reinsurance. On Part 8 of Schedule F, the provision for reinsurance reduces the "net amount recoverable from reinsurers."

The adjustments are described individually below, and an illustration is provided towards the end of this paper.

GAAP and Statutory Accounting

Statutory accounting shows unpaid losses and unearned premium reserves net of reinsurance recoverables on the balance sheet. SFAS 60 used the same procedure for GAAP financial statements until 1993.

SFAS 113, paragraph 3, citing APB Opinion No. 10, Omnibus Opinion –1966, paragraph 7 states, "It is a general principle of accounting that the offsetting of assets and liabilities in the balance sheet is improper except where a right of setoff exists." The criteria for offsetting are specified in FASB Interpretation No. 39, "Offsetting of Amounts Related to Certain Contracts." SFAS 113 notes that "those criteria include the requirement that the reporting party have the legal right to set off the amount owed to one party with an amount receivable from that same party."

SFAS 113, paragraph 14, explains that:

reinsurance contracts in which a ceding enterprise is not relieved of the legal liability to its policyholder do not result in removal of the related assets and liabilities from the ceding enterprise's financial statements. Ceding enterprises shall report estimated reinsurance receivables arising from those contracts separately as assets. Amounts paid to the reinsurer relating to the unexpired portion of reinsured contracts (prepaid reinsurance premiums) also shall be reported separately as assets.

GAAP financial statements now show two balance sheet items:

- unpaid losses and unearned premium reserves gross of reinsurance recoverables on the liability side of the balance sheet and
- the total recoverables from reinsurers on paid losses, unpaid losses, and unearned premium reserves on the asset side of the balance sheet.

NAIC Statement of Statutory Accounting Principles 62, Property & Casualty Reinsurance, section on "Accounting for Prospective Reinsurance Agreements" keeps the offsetting procedure. Paragraph 26 says:

Reinsurance recoverables on paid losses shall be reported as an asset, reinsurance recoverables on loss and loss adjustment expense payments, in the balance sheet. Reinsurance recoverables on unpaid case-basis and incurred but not reported losses and loss adjustment expenses shall be netted against the liability for gross losses and loss adjustment expenses.

The justification for retaining the net accounting procedures was to avoid a major change in statutory balance sheets. Many insurance accountants consider the GAAP procedure a more informative presentation of the company's financial position. Schedule F, Part 8 shows the statutory balance sheet as it would look if offsetting were not permitted.

The balancing item in Part 8 of Schedule F, "Net amount recoverable from reinsurers," is lower than the corresponding entry on the GAAP financial statements by the amount of the provision for reinsurance minus the GAAP provision for uncollectible reinsurance recoverables. In this sense, the provision for reinsurance is a non-admitted asset.

Restatement of Liabilities

We begin with the "Liabilities" section of this exhibit. Line 8, "losses and loss adjustment expenses (Items 1 through 3 of page 3)," may be illustrated with the commercial auto example above. Column 1 of Part 8 shows the net of reinsurance amounts that are reported on page 3. Column 2 of Part 8 shows the required adjustment to exclude the effects of ceded reinsurance. Column 3 of Part 8 shows the gross of reinsurance amounts.

In the example given earlier, for the 2002 statement, the net 2002 losses unpaid of \$3,000 would be shown in the first column, the ceded amount of \$2,000 would be shown in the second column, and the gross amount of \$5,000 would be shown in the third column. The figures in column 2 for these lines are generally positive amounts, since only ceded reinsurance (not assumed reinsurance) is considered.⁴¹

Line 10 ("item 9"), "Unearned premiums," is similar. In the commercial auto example, for the 2001 statement, the net 2001 unearned premium reserves of \$6,000 would be shown in the first column, the ceded amount of \$4,000 would be shown in the second column, and the gross amount of \$10,000 would be shown in the third column.

Item 12, "Funds held by company under reinsurance treaties," and item 15, "Provision for reinsurance," are positive liabilities on page 3. If the company had no ceded reinsurance, it would have zeros on these lines. Column 2 of this exhibit therefore has negative amounts which fully offset any positive amounts in column 1, leaving zeros in column 3.⁴²

Items 12 and 15 have similar treatment, but they are different types of entries. Item 12 is a real liability. The funds are owned by the reinsurance companies, though they are held by the ceding company. The ceding company shows a liability for the amounts which it holds but are owned by other parties, similar to the liability shown on line 13 of page 3.

Item 15 represents a statutory liability. The provision for reinsurance is not owed to a third party. It represents a statutory adjustment to cancel other assets or contra-liabilities that are not admitted assets on the statutory balance sheet.

⁴¹ Insurance accounting differs among companies, and there are numerous exceptional situations that do not conform with the general rules presented here. There are companies which show negative amounts in some of these cells. Similarly, few of the general rules mentioned later in the text are true for all companies.

⁴² The NAIC Annual Statement *Instructions* say that *these liabilities become offsets to the overall asset "net amount recoverable from reinsurers."* In other words, the full amount in column 1 is reversed in column 2. Since line 6, "net amount recoverable from reinsurers," is a balancing item, they are "offsets" to line 6.

Item 13, "amounts withheld or retained by company for account of others," does not relate to reinsurance. These are funds which the reporting company owes to other parties. Two common examples are FICA taxes at the end of the year and uncashed checks to claimants.⁴³

- An employer pays FICA taxes to the U.S. Treasury on the earnings of its employees. The FICA taxes are deposited within 15 days of the end of the month into a commercial bank or other depository institution to cover the payroll of that month. At the end of December, the reporting company still holds the cash in its own accounts, but it owes the money to the Treasury (for the benefit of its employees). A liability for the amount of the December FICA taxes is shown on line 13 of page 3.
- If a claimant does not cash a claim check drawn by the insurance company, the company must eventually remit the funds to the state. At the end of December, the reporting company may have various uncashed claim checks, but it has not yet remitted the funds to the state. A liability for these funds is shown on line 13 of page 3.

These funds are unrelated to ceded reinsurance, and it is unclear why line 13 of page 3 is broken out separately on Part 8 of Schedule F. The prominent display of this line is confusing to insurance accountants. Readers of the Annual Statement would be better served if this line were subsumed under the "other liabilities" entry in Part 8 of Schedule F.

The other lines in the liabilities section of this exhibit are less commonly used, though the analyst must consider any additional effects of reinsurance treaties. For example, the policyholder dividends declared and unpaid may be changed if a proportional reinsurance treaty contributes a percentage of the dividend.

For line 17, "surplus as regards policyholders," column 2 is "X-ed out." On page 3, surplus is the balancing item; that is, it is the difference between reported assets and reported liabilities. In Schedule F, Part 8, line 6, "net amount recoverable from reinsurers," is the balancing item. Policyholders' surplus does not change. The Part 8 exhibit changes the accounting *presentation* of the company's balance sheet. It does not change the overall *result* of the balance sheet.

Restatement of Assets

⁴³ D. Keith Bell, "Other Liabilities, Capital and Surplus," in Insurance Accounting and Systems Associations, Inc., *Property-Liability Insurance Accounting* (Durham, NC, 1994), chapter 6, page 6-9, describes the two major components of this liability:

- Deductions from employees or agents for payroll taxes, group insurance premiums, pensions, and similar items.
- Policyholder or claimant funds held by the company (e.g., uncashed checks).

Line 4, "reinsurance recoverable on loss and loss adjustment expense payments (item 14 of page 2)," relates to ceded reinsurance. The column 1 entry is offset by a negative entry in column 2, leaving a zero in column 3. Part 8 is transferring the asset from a recoverable on paid losses to part of the total recoverable from reinsurers.

Line 3, "funds held by or deposited with reinsured companies (item 11 of page 2)," relates to assumed reinsurance, not ceded reinsurance. These are the funds owned by the reporting company (whose Annual Statement we are considering) but held by its reinsured companies. This entry has nothing to do with the ceded reinsurance transactions of the reporting company. Most companies show a zero in column 2 for this line. No other entry makes sense; there is no Annual Statement *Instruction* for this line. The separate display of this line is confusing to some insurance accountants.

Line 2, "agents' balances or uncollected premiums" (item 10 of page 2), is a carry-over from the pre-2001 Annual Statement. The line and the Annual Statement *Instructions* pertaining to it will presumably be changed by the NAIC Blanks Committee as soon as the error is noted. The Annual Statement *Instructions* say that

This asset should be increased by the ceded reinsurance balances payable (reversing the parenthetical decrease on page 2, line 10) which is offset against the "net amount recoverable from reinsurers."

This was correct for the 2000 and prior Annual Statements. The 2001 NAIC codification changed the reinsurance premium balances payable

- from a contra-asset to agents' balances receivable
- to a separate liability on line 11 of page 3: "ceded reinsurance balances payable (net of ceding commissions)."

For the year 2001 Annual Statement, companies should ignore the Annual Statement *Instructions*. They should leave this item unchanged. They should reverse the balance sheet entry of Page 3, Item 11. Presumably, they should do this on the "other liabilities" line of Schedule F, Part 8, though the official designation of this line is "items 14 and 16 through 22." By oversight, line 11 of page 3 is nowhere shown on Schedule F, Part 8.

Line 1, "cash and invested assets," and line 5, "other assets," are used by some companies, while other companies show zeros in column 2 for these lines. For instance, one company shows the line 1 adjustment as a balancing item to the line 12 adjustment. Line 12 shows "funds held under reinsurance treaties." If there were no ceded reinsurance, the primary

company would not have these funds, so "cash and invested assets" are reduced by the same amount.⁴⁴

Line 6, "net amount recoverable from reinsurers," is the balancing item. Mathematically, it is the amount needed so that line 7, "total assets," column 2, equals line 16, "total liabilities," column 2. Conceptually, it is the net asset representing the "assets plus the contra-liabilities minus the liabilities" on the statutory balance sheet relating to ceded reinsurance.

⁴⁴ This reasoning is not correct. As noted earlier in the text, Part 8 does not change the reinsurance arrangements of the company; it changes only the accounting presentation of these arrangements. The liability called "funds held by company under reinsurance treaties" is transformed into a contra-asset. There is no change to the assets held by the reporting company. When completing the statutory exhibits, readers are advised to use the standard practices recommended in this paper.

Illustrations

The exhibits in Schedule F are sparsely documented in the NAIC *Instructions* to the Annual Statement. An unfortunate result is that many company statements in recent years have contained errors in the Schedule F entries.

Much of the exposition in the preceding sections is abstract. The following sections present examples that demonstrate the mechanics of completing these schedules.

I. Restatement of Balance Sheet

You are the reinsurance officer for a medium size commercial lines insurer that has substantial reinsurance transactions, and you have been asked to complete Schedule F, Part 8 of the Annual Statement. You have filled in the entries in the first column, using the figures from pages 2 and 3 of the statutory blank, as shown on the exhibit on the following page. The reinsurance accounting department in your company provides you with the following additional information:

1. The total reinsurance recoverables on paid and unpaid losses are \$160,000,000.
2. The unearned premium reserves are \$50,000,000 on direct business and \$10,000,000 on assumed business.
3. The "ceded reinsurance balances payable" on line 11 of page 3 are \$5,000,000.

Your company's management asks you what figures will appear in the boxes labeled A, B, C, and D in the third column ("restated") on the exhibit:

- A. Recoverable from reinsurers.
- B. Total assets.
- C. Total liabilities.
- D. Surplus as regards policyholders.

Schedule F, Part 8: Initial Exhibit

Schedule F, Part 8: Restatement of Balance Sheet to Identify Net Credit for Ceded Reinsurance (\$000,000's)			
ASSETS (page 2, column 3)	As Reported	Adjustment	Restated
1. Cash and invested assets	\$200		
2. Agents' balances or uncollected premiums	\$10		
3. Funds held by or deposited with reinsured companies	\$30		
4. Reinsurance recoverable on loss and LAE payments	\$40		
5. Other assets	\$20		
6. Net amount recoverable from reinsurers			A
7. Total Assets	\$300		B
LIABILITIES (page 3)			
8. Losses and loss adjustment expenses	\$100		
9. Taxes and other expenses	\$3		
10. Unearned premiums	\$40		
11. Dividends declared and unpaid	\$2		
12. Funds held by company under reinsurance treaties	\$20		
13. Amounts withheld or retained for account of others	\$1		
14. Provision for reinsurance	\$15		
15. Other liabilities	\$9		
16. Total liabilities	\$190		C
17. Surplus as regards policyholders	\$110		D
18. Total liabilities plus surplus	\$300		

Completing Part 8

The completed exhibit is shown below, along with explanation of each entry. We proceed line by line, stating the assumptions and showing the derivation of the values.

Certain adjustments depend upon the particularities of each case, for which there is insufficient information in this example (e.g., lines 1, 5, 9, and 11 below). We assume that no adjustments are needed for these lines unless information requiring an adjustment is provided.

For certain other items, there are differences of opinion among insurance accountants about the proper adjustments. The illustration here should not be taken to imply that other methods of completing this exhibit are necessarily wrong.

Assets

1. Line 1 in the exhibit, "Cash and invested assets," needs no adjustment. The entry in column 3 is \$200,000,000.

2. The Part 8 exhibit along with its *Instructions* assume pre-codification statutory accounting for agents' balances. The exhibit and its instructions will presumably be corrected to conform with the current statutory balance sheet. (By the time this paper is printed, the corrections noted here should have been placed on the NAIC web site.)

We explain first the intention of the Annual Statement *Instructions*, which assume the pre-2001 balance sheet format. We then show the appropriate accounting entries for 2001 and subsequent years.

Before 2001, the following balance sheet items were net of reinsurance ceded: (i) loss reserves, (ii) loss adjustment expense reserves, (iii) unearned premium reserves, and (iv) agents' balances. We deal with loss reserves, loss adjustment expense reserves, and unearned premium reserves in the appropriate sections below. The agents' balances entry was direct agents' balances and premiums receivable net of reinsurance balances payable. For instance, if direct agents' balances were \$15 million and premium balances owed to assuming reinsurers were \$5 million, the agents' balances entry on line 10.1 of page 2 was \$10 million. The pre-2001 line label for agents' balances on the statutory balance sheet was "Premiums and agents' balances in course of collection (after deducting ceded reinsurance balances payable of _____)."

The NAIC codification project prohibited the netting of premiums receivable with premiums payable, though it retained the net accounting for loss reserve and unearned premium reserves. Statutory issue paper No. 75, "Property and Casualty Reinsurance," paragraph 5

says that "ceded reinsurance premiums payable (net of ceding commission) shall be classified as a liability." The current line 10.1 on page 2 reads "Premiums and agents' balances in course of collection," and line 11 on page 3 reads "ceded reinsurance balances payable (net of ceding commissions)."

The Schedule F, Part 8 exhibit has not been updated to reflect this change. The 2001 *Instructions* for agents' balances on the Schedule F, Part 8 exhibit still read:

Line 2 – AGENTS' BALANCES OR UNCOLLECTED PREMIUMS: This asset should be increased by the ceded reinsurance balances payable (reversing the parenthetical decrease on Page 2, Line 10) which is offset against "net amount recoverable from reinsurers."

This Annual Statement *Instruction* is no longer valid by January 1, 2001, when codification of statutory accounting was effective. There should be no adjustment for line 2. Instead, the statutory liability on line 11 of page 3 for ceded reinsurance balances payable should be reversed in column 2 of Schedule F, Part 8. There is no separate line for this in Part 8, so the reversal should be made on line 15, "other liabilities." The label for line 15 says "items 14 and 16 through 22," which does not include item 11 on page 3. The item numbers should be disregarded in this instance.

3. Line 3 in the exhibit, "Funds held by or deposited with reinsured companies," relates to assumed reinsurance, not ceded reinsurance. The company provides reinsurance to other carriers, as shown by the \$10,000,000 of unearned premium reserves on assumed business. Since Part 1 of Schedule F relates to ceded reinsurance only, there is no adjustment on this line, and the restated entry remains \$30,000,000.

4. Line 4 in the exhibit, "Reinsurance recoverable on loss payments," is the recoveries from reinsurers on losses that have already been paid. If there were no ceded reinsurance, there would be no recoverables from reinsurers. This entry is reversed by an adjustment of -\$40,000,000, yielding a zero in the restated column. The whole amount is offset by an opposite entry in line 6, "Net amount recoverable from reinsurers."

5. Line 5 in the exhibit, "Other assets," are not affected by ceded reinsurance transactions except in exceptional circumstances. We assume that no such exceptions are involved here, so we enter a zero for the adjustment and \$20,000,000 in the "restated" column.

6. Line 6 in the exhibit, "Net amount recoverable from reinsurers," is the balancing item. We can not determine it until we have completed the "liabilities" portion of this exhibit.

7. Line 7 is the total assets. This is the sum of lines 1 through 6. Since line 6 is not yet known, we skip line 7 as well.

Liabilities

8. We are told that "the total reinsurance recoverables on paid and unpaid losses are \$160,000,000." The recoverables on paid losses are \$40,000,000 (line 4), so the recoverables on unpaid losses (line 8) are \$120,000,000. We enter \$120,000,000 as the adjustment on line 8, and \$220,000,000 as the restated amount.

9. Most of the items included in line 9 (lines 4 through 8 of page 3) are not directly affected by reinsurance transactions. For instance, line 6 on page 3, "taxes, licenses, and fees" is based on direct premium written, not on net premium written. Similarly, income taxes, borrowed money, and interest (lines 7, 8, and 9 on page 3) are not related to the manner in which reinsurance transactions are presented.⁴⁵ Contingent commissions (included in line 3 on page 3) may sometimes be affected by reinsurance transactions. Since we are given no information about this, we assume that no adjustment is needed here. We enter a zero for the "adjustment," yielding \$3,000,000 in the restated column.

10. Line 10 in this exhibit shows \$40,000,000 of net unearned premium reserves. Since the direct unearned premium reserve is \$50,000,000 and the assumed unearned premium reserve is \$10,000,000 (as stated by the reinsurance accounting department), the ceded unearned premium reserve is \$20,000,000, which is the adjustment for this line. The entry in the restated column is \$60,000,000.

11. Line 11 in this exhibit, "dividends declared and unpaid," relates generally to direct business, not to net business. The adjustment for this line is zero, and the restated amount is \$2,000,000.⁴⁶

12. Line 12 in this exhibit, "Funds held under reinsurance treaties," are monies owned by reinsurers but held by the primary company. If there were no ceded reinsurance, the primary company would not be holding any funds belonging to reinsurers. The entry is reversed by an adjustment of -\$20,000,000, leaving a zero in the restated column.

13. Line 13 in this exhibit, "Amounts withheld for account of others," is generally not related to reinsurance transactions. The adjustment is zero, leaving 1 million in the restated column.

⁴⁵ One might suppose that federal income taxes depend on reinsurance transactions, since if the reinsurer indemnifies an incurred loss, the tax liability should increase. This is not relevant to the Part 8 exhibit. When we restate the accounting presentation of the statutory balance sheet, the tax liability does not change.

⁴⁶ In some instances, particularly on quota share treaties, the reinsurer may pay a part of the policyholders' dividend. In other treaties, there is no policyholders' dividend liability incurred by the reinsurer. Rather, the expected policyholder dividend may be included in the ceding commission, it may be paid to the primary company (not to the policyholders), or it may be included in a sliding scale commission arrangement. For simplicity, this illustration assumes that there is no ceded portion of the policyholders' dividend liability.

14. Line 14 in this exhibit, "Provision for reinsurance," is the statutory penalty for recoverables from unauthorized reinsurers, recoverables from slow-paying reinsurers, loss recoverables more than 90 days past due, and amounts in dispute. If there were no ceded reinsurance, there would be no provision for reinsurance. The entire amount is eliminated on a "gross of reinsurance" basis. The adjustment is -\$15,000,00, and the restated amount is zero.

15. Line 15 in this exhibit, "Other liabilities," generally do not relate to reinsurance transactions. This entry is comprised of the following items from page 3:

- Remittances and items not allocated;
- Net adjustments to assets and liabilities due to foreign exchange rates;
- Drafts outstanding;
- Payable to parent, subsidiaries, or affiliates;
- Payable for securities;
- Liability for amounts held under uninsured accident and health plans;
- Capital notes and interest thereon; and
- Aggregate write-ins for liabilities.⁴⁷

As noted above, item 11 from the balance sheet, "ceded reinsurance balances payable, net of ceding commission," should be included in this line. This balance sheet entry is reversed, so we enter -\$5,000,000 for the "adjustment," leaving \$4,000,000 in the restated column.

16. Line 16 in this exhibit, "Total liabilities," is the sum of lines 8 through 15. For the adjustments, we have (in millions of dollars)

$$120 + 0 + 20 + 0 - 20 + 0 - 15 - 5 = \$100 \text{ million,}$$

and for the restated column we have

$$220 + 3 + 60 + 2 + 0 + 1 + 0 + 4 = \$290 \text{ million.}$$

17. Line 17 in this exhibit, "surplus as regards policyholders," is not affected by this calculation for Schedule F, Part 8. Reclassifying the balance sheet accounts changes the accounting presentation; it does not change surplus. Column 2, the adjustment, is "X-ed out" in the blank. The restated amount is the same as the reported amount: \$110,000,000.

⁴⁷ The aggregate write-ins for liabilities may include a contra-liability for recoverables on retroactive reinsurance; see SSAP No. 62, "Reinsurance," paragraph 28.

BALANCING ITEMS

We return to the two lines that we did not complete in the asset section of this exhibit. Since the total liability adjustment is \$100,000,000, the total asset adjustment must also be \$100,000,000 (column 2 of line 7). The total asset adjustment is the sum of the individual asset adjustments. The one asset adjustment in this illustration is -\$40,000,000 on line 4 (reinsurance recoverable on loss payments). A balancing adjustment of \$140,000,000 [= \$100,000,000 - (-\$40,000,000)] is entered for line 6 (net amount recoverable from reinsurers).

The entries in the restated column are the sum of the entries in the as reported and adjustment columns. For the cells labeled A, B, C, and D, we have

- A. For line 6 (recoverable from reinsurers), the restated amount is $\$0 + \$140,000,000 = \$140,000,000$.
- B. For line 7 (total assets), the restated amount is $\$300,000,000 + \$100,000,000 = \$400,000,000$.
- C. For line 16 (total liabilities), the restated amount is $\$190,000,000 + \$100,000,000 = \$290,000,000$.
- D. For line 17 (surplus as regards policyholders), the adjustment is always \$0 and the restated amount equals the "as reported" amount.

The completed Part 8 exhibit is shown on the following page.

Schedule F, Part 8: Completed Exhibit

Schedule F, Part 8: Restatement of Balance Sheet to Identify Net Credit for Ceded Reinsurance (\$000,000's)			
ASSETS (page 2, column 3)	As Reported	Adjustment	Restated
1. Cash and invested assets	\$200	—	\$200
2. Agents' balances or uncollected premiums	\$10	\$0	\$10
3. Funds held by or deposited with reinsured companies	\$30	—	\$30
4. Reinsurance recoverable on loss and LAE payments	\$40	(\$40)	\$0
5. Other assets	\$20	—	\$20
6. Net amount recoverable from reinsurers		\$140	\$140
7. Total Assets	\$300	\$100	\$400
LIABILITIES (page 3)			
8. Losses and loss adjustment expenses	\$100	\$120	\$220
9. Taxes and other expenses	\$3	—	\$3
10. Unearned premiums	\$40	\$20	\$60
11. Dividends declared and unpaid	\$2	—	\$2
12. Funds held by company under reinsurance treaties	\$20	(\$20)	\$0
13. Amounts withheld or retained for account of others	\$1	—	\$1
14. Provision for reinsurance	\$15	(\$15)	\$0
15. Other liabilities	\$9	(\$5)	\$4
16. Total liabilities	\$190	\$100	\$290
17. Surplus as regards policyholders	\$110	xxx	\$110
18. Total liabilities plus surplus	\$300	\$100	\$400

II. Provision for Unauthorized Reinsurance

We show several illustrations of the provision for reinsurance, beginning with a single, unauthorized reinsurer with no securitization of the recoverables and proceeding to more complex illustrations involving payment schedules and overdue receivables.

FLEDGLING INSURANCE

You are the reinsurance officer for the Fledgling Insurance Company, a small, newly capitalized personal automobile insurer. All your business is 100% reinsured with the XYZ Reinsurance Company, which is not licensed or authorized in your domiciliary state.

Written premium during the year was \$50 million, and earned premium was \$40 million. The unearned premium reserve at the end of the year is \$20 million. These amounts are also 100% reinsured by XYZ Reinsurance.

Reported but unpaid losses are \$25 million, along with \$6 million of unpaid loss adjustment expenses associated with these claims. Incurred but not reported losses are \$10 million, along with \$4 million of unpaid loss adjustment expenses. These amounts are 100% reinsured by XYZ Reinsurance.

\$35 million was paid to claimants this past year, along with \$10 million in loss adjustment expenses. For these claims, Fledgling still awaits recovery of \$15 million in losses and \$5 million in loss adjustment expenses from XYZ Reinsurance.

XYZ Reinsurance has denied liability for \$5 million of these losses. Fledgling Insurance expects a full recovery, and the matter is in litigation.

XYZ Reinsurance has not provided Fledgling Insurance with any security, whether letters of credit, trust agreements, or funds withheld.

Fledgling assumes no reinsurance business from other primary writers, and it cedes no business to other reinsurers.

You have been asked to complete the entries for the following items on Fledgling's balance sheet (pages 2 and 3 of the Annual Statement):

Page 2:

- Line 11 Funds held by or deposited with reinsured companies
- Line 14 Reinsurance recoverables . . .

Page 3:

- Line 1 Losses
- Line 2 Reinsurance payable . . .
- Line 3 Loss adjustment expenses
- Line 9 Unearned premiums
- Line 12 Funds held by company under reinsurance treaties
- Line 15 Provision for reinsurance

What are the appropriate entries for each of these lines?

Balance Sheet Entries

Since XYZ Reinsurance is not authorized and provides no offsetting funds or letters of credit, all recoverables from XYZ are included in the provision for reinsurance. There is no need for a payment schedule to determine amounts more than 90 days past due.

All balance sheet items are net of reinsurance, with no differentiation between authorized and unauthorized reinsurers, slow-paying and quick-paying reinsurers, and loss recoverables more than 90 days past due versus other loss recoverables. Line 15 on page 3 shows the aggregate provision for reinsurance, relating to recoverables on paid losses, unpaid losses, unearned premium reserves, and commissions.

Because Fledgling is 100% reinsured, it has no net liabilities. Because XYZ Reinsurance is unauthorized and it provides no security, all recoverables are included in the provision for reinsurance. Proceeding line by line . . .

- Page 2, line 11, "Funds held by or deposited with reinsured companies," refers to funds owned by Fledgling that are held by primary companies that have ceded business to Fledgling. Since Fledgling does not assume any reinsurance, it has not deposited funds with any ceding companies, and this amount is \$0.
- Page 2, line 14, "Reinsurance recoverables, on loss and loss adjustment expense payments," relates to recoverables from XYZ Reinsurance on losses and loss adjustment expenses already paid by Fledgling. This amount is \$20 million, or \$15 of loss plus \$5 of defense and cost containment expenses.

XYZ's unauthorized status does not affect this asset. Insurance personnel sometimes speak of unauthorized reinsurance recoverables as non-admitted assets, but there is no "non-admitted" adjustment to this asset. Even XYZ's denial of liability does not affect this asset, as long as Fledgling expects to receive the money. Rather, the asset is offset by a corresponding liability on line 15 of page 3. In GAAP statements, which do not include a provision for reinsurance, Fledgling would disclose in a footnote the disputed amount.

- Page 3, line 1 shows loss reserves net of reinsurance, whether the reinsurance is authorized or not. This entry is \$0, since all of Fledgling's business is reinsured.
- Page 3, line 2, "Reinsurance payable on paid losses," shows Fledgling's liabilities for assumed reinsurance losses. Since Fledgling assumes no business from other primary carriers, this entry is \$0.

- Page 3, line 2, shows loss adjustment expense reserves net of reinsurance, whether the reinsurance is authorized or not. This entry is \$0, since all of Fledgling's business is reinsured.
- Page 3, line 9, shows unearned premium reserves net of reinsurance, whether the reinsurance is authorized or not. This entry is \$0, since all of Fledgling's business is reinsured.
- Page 3, line 12, "Funds held by company under reinsurance treaties," shows funds owned by XYZ Reinsurance that are held by Fledgling as security for its recoverables. Since XYZ Reinsurance has provided no security to Fledgling, this entry is \$0.
- Page 3, line 15, "Provision for reinsurance," includes all the recoverables from XYZ Reinsurance. The recoverables relate to

● the unearned premium reserve	\$20 million
● paid losses	15 million
● paid allocated loss adjustment expenses	5 million
● unpaid reported losses	25 million
● unpaid IBNR losses	10 million
● <u>unpaid defense and cost containment expenses</u>	<u>10 million</u>
Total	\$85 million

The entry for line 15 is \$85 million.

The provision for reinsurance from unauthorized reinsurers includes a provision for paid loss recoverables more than 90 days past due and for amounts in dispute in addition to the provision for unsecured total recoverables. The total provision for reinsurance is limited by the total recoverables. In this problem, the limit is reached by the provision for total unsecured recoverables, since no security has been provided. No additional provision need be made for paid loss recoverables more than 90 days past due or for amounts in dispute.

III. Overdue Reinsurance

The Stable Insurance Company, a commercial fire carrier specializing in property coverage for large risks over a high self-insured retention, has a 100% quota share reinsurance treaty with the Secure Reinsurance Company, which is licensed to conduct business in Stable's domiciliary state. During the past year, Secure has denied liability for two large claims and has been slow in paying on several other claims. Stable Insurance Company has asked Secure Reinsurance Company for a letter of credit of \$40 million, which Secure provided on November 15. The letter of credit applies to recoverables on paid losses, recoverables on unpaid losses, and unearned premiums, but not to the two claims for which Secure has denied liability.

The reinsurance payment schedule from Secure Reinsurance is shown on the next page. Claim amounts are in thousands of dollars. For instance, the second line shows a claim with an accident date of January 12. Stable paid the claimant \$1.6 million on March 3, and it received reimbursement from Secure on July 17.

Stable has filed suit to recover the \$12 million relating to the January 4 claim, and the case is currently in litigation. Stable is discussing the March 10 claim with Secure, but no suit has yet been filed. Stable also has \$8 million of unearned premium reserves ceded to Secure.

The "due date" for recoverables depends on contract provisions. If the reinsurance treaty does not define the due date or the date on which claims are to be presented to the reinsurer for payment, then recoverables are assumed to be due when the paid loss recoverable is entered on the ceding company's books. In this illustration, assume that no due date or presentation date is stated in the reinsurance treaty, and that the paid loss recoverable is entered on the ceding company's books when the direct loss payment is made.

What provision for reinsurance must Stable Insurance Company hold on its balance sheet (line 15 of page 3) at December 31?

Reinsurance Payment Schedule
(figures in thousands of dollars)

<u>Amount of Claim</u>	<u>Accident Date</u>	<u>Payment Date (Stable to Claimant)</u>	<u>Payment Date (Secure to Stable)</u>
12,000	Jan 4	Feb 5	(unpaid; Secure denies liability)
1,600	Jan 12	Mar 3	July 17
1,500	Feb 26	July 20	(unpaid)
4,400	Mar 9	June 2	Aug 1
6,500	Mar 10	Apr 14	(unpaid; Secure denies liability)
3,000	Apr 16	May 17	Oct 29
3,500	May 8	June 13	Sept 29
2,500	June 3	July 19	(unpaid)
1,000	June 8	June 28	Dec 12
4,000	Aug 22	Nov 4	(unpaid)
6,000	Aug 9	(unpaid)	(unpaid)
10,000	Sept 2	Oct 21	(unpaid)
11,200	Nov 18	(unpaid)	(unpaid)
3,800	Dec 5	(unpaid)	(unpaid)

Aging Schedule

- If an authorized reinsurer is *not* slow-paying, the provision for reinsurance is 20% of the recoverables more than 90 days past due plus 20% of the amounts in dispute, with no offset for funds withheld or letters of credit.
- If the reinsurer is classified as slow-paying, the provision for reinsurance is 20% of the larger of (i) the total recoverables, with an offset for funds withheld or letters of credit, and (ii) the recoverable more than 90 days past due.

To determine whether Secure is slow-paying, we divide the claims into six categories:

- A. Claims for which reinsurance recoveries were received more than 90 days prior to the statement date;
- B. Claims for which reinsurance recoveries were received within the 90 days preceding the statement date;
- C. Claims paid by Stable for which the reinsurance recoverables are less than or equal to 90 days overdue;
- D. Claims paid by Stable for which the reinsurance recoverables are more than 90 days overdue (and not in dispute);
- E. Claims in dispute; and
- F. Claims still unpaid by Stable.

Classification as a slow-paying reinsurer depends on the ratio $D \div (B + C + D)$. This is the ratio of

- the amounts more than 90 days overdue to
- the amount receivable on paid claims plus the amounts received in the past 90 days.

The reinsurer is classified as slow-paying if this ratio exceeds 20%.

Using the payment schedule shown above, we have

- A. \$1.6 million + \$4.4 million + \$3.5 million = \$9.5 million (January 12, March 9, and May 8 claims).
- B. \$3 million + \$1 million = \$4 million (April 16 and June 8 claims).
- C. \$4 million + \$10 million = \$14 million (August 22 and September 2 claims).
- D. \$1.5 million + \$2.5 million = \$4 million (February 26 and June 3 claims).
- E. \$12 million + \$6.5 million = \$18.5 million (January 4 and March 10 claims).
- F. \$6 million + \$11.2 million + \$3.8 million = \$21 million (August 9, November 18, and December 5 claims).

The ratio of D to (B + C + D) equals \$4 million ÷ (\$4 million + \$14 million + \$4 million) = 18.2%. Since this ratio is less than 20%, Secure is not a slow-paying reinsurer.

20% of the overdue recoverables, 20% of \$4 million, or \$800,000 is included in the provision for reinsurance. In addition, there are \$18.5 million of recoverables in dispute, 20% of which is \$3.7 million. The total provision for reinsurance is \$0.8 million + \$3.7 million = \$4.5 million.

The letter of credit provided by Secure does not affect the statutory provision for amounts more than 90 days past due or for amounts in dispute. The provision for reinsurance which appears in the Schedule F, Part 7, footnote and on line 15 of page 3 is \$4,500,000.

In this example, the statutory provision for reinsurance is \$4,500,000, whereas the amounts in dispute are \$18.5 million. It is possible that the expected uncollectible amount exceeds the provision for reinsurance determined by the statutory formula. If so, the statutory provision for reinsurance should be increased to cover the expected uncollectible amounts. The excess of the expected uncollectible amount over the statutory provision for reinsurance flows through the income statement and affects taxable income as well.

In any case, Stable should disclose the potential effects of an adverse outcome of these disputes in the Notes to the Financial Statements. These potential adverse outcomes are classified as loss contingencies. As long as their likelihood is not remote, their effects should be disclosed in the notes. See SSAP No. 5, "Liabilities, Contingencies and Impairments of Assets," paragraph 14 (copied from SFAS 5):

If a loss contingency or impairment of an asset is not recorded . . . or if exposure to a loss exists in excess of the amount accrued pursuant to the provisions described above, disclosure of the loss contingency or impairment of the asset shall be made in the financial statements when there is at least a reasonable possibility that a loss or an additional loss may have been incurred. The disclosure shall indicate the nature of the contingency and shall give an estimate of the possible loss or range of loss or state that such an estimate cannot be made.

IV. Slow-Paying Reinsurers

The Standard Reinsurance Company is licensed to conduct reinsurance business in the domiciliary state of the primary insurance company. The Schedule F, Part 4 entries for Standard are shown below.

Column 4	Current	\$40 million
Column 5	1-29 days overdue	\$25 million
Column 6	30-90 days overdue	\$50 million
Column 7	91-120 days overdue	\$20 million
Column 8	over 120 days overdue	\$55 million

On Part 3 of Schedule F, the entries for Standard Reinsurance are as follows:

Column 1, "Reinsurance premium ceded,"	\$210 million
Column 2, "Recoverables on paid losses,"	\$175 million
Column 3, "Recoverables on paid LAE,"	\$15 million
Column 4, "Recoverables on known case loss reserves,"	\$160 million
Column 5, "Recoverables on known case LAE reserves,"	\$20 million
Column 6, "Recoverables on IBNR loss reserves,"	\$100 million
Column 7, "Recoverables on IBNR LAE reserves,"	\$10 million
Column 8, "Unearned premiums,"	\$75 million
Column 9, "Commissions,"	\$5 million

In the past 90 days, Standard has made payments of \$75 million for losses and loss adjustment expenses. Standard has provided a letter of credit for \$200 million to secure its recoverables.

We compute the provision for reinsurance for the Standard Reinsurance Company.

Overdue Ratio

Since Standard is authorized, we determine whether it is a slow-paying reinsurer. We consider the ratio of (i) the amounts more than 90 days past due to (ii) the total amount receivable on paid claims plus the amounts received in the past 90 days, after eliminating all items in dispute from the total due and the amount more than 90 days past due. Standard is classified as slow-paying if this ratio exceeds 20%.

The information provided above shows

- \$75 million more than 90 days overdue (columns 7 + 8 of Part 4),

- \$190 million of total recoverables on paid losses and loss adjustment expenses (the sum of columns 4 through 8 of Part 3), and
- \$75 million of recoverables received in the past 90 days.

The ratio is $\$75 \text{ million} \div (\$190 \text{ million} + \$75 \text{ million}) = 28.3\%$. The Standard Reinsurance Company is classified as a slow-paying reinsurer.

The total recoverables from Standard are

- \$190 million of recoverables on paid losses and loss adjustment expenses;
- \$180 million of recoverables on unpaid "case basis" losses and LAE;
- \$110 million of recoverables on unpaid IBNR losses and LAE;
- \$75 million of ceded unearned premium reserves; and
- \$5 million of commissions.

for a total of \$560 million.

Standard Reinsurance has provided a letter of credit to secure \$200 million of these recoverables, so the unsecured recoverables are \$360 million. The provision for reinsurance considers two elements:

- Twenty percent of the unsecured amount, or \$72 million ($= \$360 \text{ million} \times 20\%$), and
- Twenty percent of the amount more than 90 days past due, or \$15 million ($= \$75 \text{ million} \times 20\%$).

The provision for reinsurance is the larger of these two amounts, or \$72 million.

V. Provision for Reinsurance by Type of Reinsurer

We calculate the provision for reinsurance for recoverables from the reinsurers listed below (dollar amounts are in millions).

	<u>Reinsurer A</u>	<u>Reinsurer B</u>	<u>Reinsurer C</u>
	Unauthorized	Authorized	Authorized
Authorized status			
Reinsurance recoverable (all items)	\$100	\$100	\$100
Funds held by reporting company under reinsurance treaties	10	10	10
Letters of credit	75	0	0
Recoverables on paid loss & LAE over 90 days due, not in dispute	20	5	5
Recoverables on paid loss & LAE over 120 days due, not in dispute	10	2	2
Recoverables on paid loss & LAE, total	50	32	32
Amount in dispute included above	25	10	10
Amounts company received from reinsurer in last 90 days of statement year	5	5	0

Unauthorized Reinsurance

We begin with Reinsurer A. Since Reinsurer A is not authorized, we determine the total unsecured recoverables.

- Total recoverables = \$100
- Collateral is the sum of letters of credit (\$75) and funds withheld (\$10) = \$85
- Unsecured total recoverables = $100 - \$85 = \15

We then consider the overdue recoverables and the amounts in dispute.

- Loss recoverables more than 90 days past due = \$20
- Amounts in dispute = \$25

Recall that amounts in dispute are part of total recoverables but not of overdue recoverables.

The provision for reinsurance includes all recoverables from unauthorized reinsurers unless they are collateralized by letters of credit or funds withheld. The collateral does not help for overdue recoverables or for amounts in dispute, so 20% of these latter two items is added to the provision for reinsurance to the extent that it does not exceed the amount of collateral.

The formula for the total provision for reinsurance, including the capping rule is

- total recoverables – collateral
- + lesser of (a) 20% of overdue recoverables + 20% of amounts in dispute and (b) the amount of collateral

In this illustration, the figures are

$$\begin{aligned}
 & \$100 - \$85 \\
 + & \text{ lesser of (a) } 20\% \times \$20 + 20\% \times \$25 \text{ and (b) } \$85 \\
 = & \$15 + \$4 + \$5 = \$24.
 \end{aligned}$$

We have stated the capping rule as it appears in the Schedule F exhibits. We may rephrase the capping rule to say that the provision for reinsurance is limited to the total reinsurance recoverables.

Authorized Reinsurers

Reinsurer B is authorized, so we determine whether it is slow-paying. A slow-paying reinsurer has an overdue ratio exceeding 20%.

The overdue ratio equals the ratio of recoverables more than 90 days past due to the sum of the total recoverables on paid losses and LAE that are *not* in dispute and the recoverables received in the past 90 days.

The figures in this illustration are

recoverables more than 90 days past due	= \$5
total recoverables on paid loss and LAE	= \$32
amount in dispute	= \$10
recoverables received in the past 90 days	= \$5

The overdue ratio is

$$\$5 \div (\$32 - \$10 + \$5) = \$5 \div \$27 = 18.5\%.$$

Since the ratio does not exceed 20%, the insurer is not slow-paying.

Non-Slow-Paying Reinsurers

Since reinsurer B is not slow-paying, the provision for reinsurance is

$$20\% \text{ of overdue recoverables} + 20\% \text{ of amounts in dispute.}$$

The figures are

$$20\% \times \$5 \text{ (overdue recoverables)} + 20\% \times \$10 \text{ (amounts in dispute)} = \$1 + \$2 = \$3.$$

Slow-Paying Reinsurers

Reinsurer C has the same recoverables as Reinsurer B, but it paid no claims in the last 90 days of the statement year. This affects the overdue ratio test; it does not change the recoverables.

The overdue ratio is

$$\$5 \div (\$32 - \$10 + \$0) = \$5 \div \$22 = 22.73\%.$$

Since the ratio exceeds 20%, the insurer is slow-paying.

The provision for reinsurance for slow-paying authorized reinsurers is similar to the provision for unauthorized reinsurance, except that the provision is only 20% of the unsecured recoverables, not 100%. (The other differences, such as the “greater than” provision, are noted below.)

The unsecured total recoverables are $\$100 - \$10 = \$90$, and 20% of the unsecured recoverables are $20\% \times (\$90) = \18 .

The loss recoverables that are more than 90 days past due are \$5, and 20% of \$5 = \$1.

The greater of \$18 and \$1 is \$18, which is the provision for reinsurance for Reinsurer C.

The final provision for reinsurance is the sum of the provisions for the three reinsurers, or $\$24 + \$3 + \$18 = \45 .

COLLATERAL

For slow-paying reinsurers, amounts in dispute are included in total recoverables, and they are not considered separately. As noted in the text of the paper, this may be an oversight by the regulators who designed Schedule F, since collateral should not offset the provision for amounts in dispute.⁴⁸

⁴⁸ The rules for slow-paying authorized reinsurers are particularly strange. If collateral does not offset the provision for overdue recoverables, it surely should not offset the provision for amounts in dispute.

In this exercise, the authorized reinsurer has not provided any collateral. This makes sense, since for an authorized reinsurer, collateral helps only if the reinsurer is slow-paying. But what reinsurer assumes at the outset that it is going to be slow-paying?

For slow-paying authorized reinsurers, collateral plays a role in the "greater than" expression used to compute the total provision for reinsurance. Suppose that this insurer had

- \$100 of total recoverables;
 - \$100 of collateral; and
 - \$ 50 of overdue recoverables.
-
- The amount of uncollateralized recoverables is \$0, so 20% of that is also \$0.
 - The collateral does not help for overdue recoverables.
 - 20% of \$50 is \$10, which is greater than the \$0 derived above.
 - The final provision for reinsurance is \$10.

VI. Slow-Paying Authorized Reinsurers

Given the following entries from Schedule F, we determine the provision for reinsurance for the reinsurer shown. Dollar amounts are in millions.

XYZ Reinsurance Company is authorized in the domiciliary state of the ceding company. No amounts are in dispute. XYZ has made payments of \$45 in the past 90 days and has a letter of credit securing recoverables of \$250.

Data from Schedule F, Part 4, "Aging of Ceded Reinsurance"

Name of Reinsurer	XYZ
Current Recoverables	80
Recoverables 1 – 29 days overdue	15
Recoverables 30 – 90 days overdue	5
Recoverables 90 – 120 days overdue	20
Recoverables over 120 days overdue	40

Data from Schedule F, Part 3, "Ceded Reinsurance"

Name of Reinsurer	XYZ
Reinsurance Premium Ceded	100
Recoverables on paid losses	125
Recoverables on paid LAE	35
Recoverables on known case loss reserves	30
Recoverables on known case LAE reserves	50
Recoverables on IBNR loss reserves	70
Recoverables on IBNR LAE reserves	25
Recoverables on Unearned Premiums	75
Recoverables on Commissions	3

Aging Schedule

The XYZ Reinsurance Co. is authorized. We use the aging schedule to test if it is slow paying.

The illustration in the text of the paper (Secure Insurance and Stable Reinsurance) provides a list of claims and their payment dates to determine the slow-paying status of the reinsurer. This exercise provides the Schedule F entries in Parts 3 and 4.

Current recoverables are recoverables that are still before the due date. This is most common when a due date is specified in the reinsurance contract. If there is a due date specified in the reinsurance contract, and the due date is the date on which the reinsurance recoverable is entered in the financial statements of the reporting company, then if the reinsurance

recoverable is entered when the primary loss is paid, few recoverables on paid losses are current.

The overdue ratio is defined as

recoverables on paid losses and LAE more than 90 days past due

divided by the sum of

(i) all recoverables on paid losses and LAE and

(ii) recoverables paid in the last 90 days of the statement year.

Both the numerator and the denominator of this ratio exclude amounts in dispute. In this exercise, there are no amounts in dispute.

The recoverables more than 90 days past due are $\$20 + \$40 = \$60$ (Schedule F, Part 4).

The total recoverables on paid losses and LAE are shown both in Part 3 and in Part 4.

- From Part 4 we have: $\$80 + \$15 + \$5 + \$20 + \$40 = \160 .
- From Part 3 we have: $\$125 + \$35 = \$160$.

The recoverables on paid losses and LAE that were paid in the last 90 days of the statement year are \$45.

The overdue ratio is $\$60 / (\$160 + \$45) = \$60 / \$205 = 29.3\%$. The XYZ Reinsurance Company is slow paying.

Provision for Reinsurance

The provision for reinsurance is the greater of

- i. 20% of the unsecured total recoverables (not just on paid losses, and including amounts in dispute) and
- ii. 20% of the recoverables on paid losses that are more than 90 days past due.

Security reduces the total unsecured recoverables, but it does not reduce the recoverables more than 90 days past due.

Total recoverables are

- the ceded unearned premium reserves
- + the recoverables on paid losses and LAE
- + the recoverables on unpaid losses and LAE
- + expected commissions.

The commissions are contingent commissions or profit commissions. Regular reinsurance commissions are deducted from the premium balances and not paid by the ceding company to the reinsurer, so they would not be recoverable.

The figures are shown in Part 3 of Schedule F

- the ceded unearned premium reserves = \$75.
- the recoverables on paid losses and LAE = \$160.
- the recoverables on unpaid losses and LAE = \$30 + \$50 + \$70 + \$25 = \$175
- the recoverable commissions = \$3.
- The total recoverables = \$75 + \$160 + \$175 + \$3 = \$413.
- The letter of credit is for \$250. The total unsecured recoverables = \$413 - \$250 = \$163.
- 20% of \$163 = \$32.60.

20% of the recoverables that are more than 90 days past due = $20\% \times \$60 = \12 .

The provision for reinsurance is the greater of \$32.60 and \$12, or \$32.60.

VII. Decision Tree Rules

One final illustration shows the inter-relationship between overdue amounts and security.

The ABC Insurance Company has \$10 million recoverable from an unauthorized reinsurer, \$5 million of which is overdue. There are letters of credit totaling \$6 million.

We determine the provision for reinsurance. The reinsurer is not authorized. The provision for reinsurance is the unsecured total recoverables plus 20% of the overdue amount plus 20% of the amount in dispute. In this exercise, there are no amounts in dispute. Security is not relevant for overdue amounts. The provision for reinsurance is

$$(\$10 \text{ million} - \$6 \text{ million}) + 20\% \times \$5 \text{ million} = \$4 \text{ million} + \$1 \text{ million} = \$5 \text{ million}.$$

One must check the limitation. In this example, the provision for overdue recoverables, or \$1 million, is less than the amount of security (\$6 million), so there is no limitation.

Schedule F: Objectives and Evaluation

Schedule F is a series of complex exhibits, requiring considerable effort to complete. The provision for reinsurance may have a significant effect on policyholders' surplus, and it influences reinsurance practices for both domestic and international transactions.

The previous sections of this paper deal with the accounting entries required to complete the exhibits of Schedule F. The following sections evaluate the benefits and costs of Schedule F in light of the objectives of state insurance regulation.

- What are the objectives of Schedule F, and how well does Schedule F meet them?
- Are there alternative means of meeting these objectives?
- Are these objectives aligned with regulatory responsibilities to the insuring public?
- How might the regulatory responsibilities best be met?

Insurance is a highly regulated industry. Much regulation is beneficial to insurance consumers and effectively performed by state insurance departments. Some regulation may be unduly burdensome or inefficient. The task for regulators and industry professionals is to strengthen the efficient regulation and to revise or eliminate the wasteful regulation.

The primary objective of state insurance regulation is defined in the *Statutory Accounting Principles Statement of Concepts*, "objectives of statutory financial reporting," paragraph 27:

The primary responsibility of each state insurance department is to regulate insurance companies in accordance with state laws with an emphasis on solvency for the protection of policyholders. . . . The cornerstone of solvency measurement is financial reporting. Therefore, the regulator's ability to effectively determine relative financial condition using financial statements is of paramount importance to the protection of policyholders. . . .

We examine the financial reporting in Schedule F in light of the regulatory responsibility in the Statement of Concepts cited above.

ACCOUNTING PHILOSOPHIES

Parts 4 through 7 of Schedule F serve to determine the provision for reinsurance, whose purpose is described in the NAIC Practices and Procedures Manual (SSAP No. 62, "Reinsurance," paragraph 52) as a "minimum reserve for uncollectible reinsurance."⁴⁹

General accounting statements also estimate uncollectible reinsurance recoverables. GAAP requires the management of the insurance company to disclose its best estimate of all receivables that may not be collected, not just reinsurance recoverables. These uncollectible amounts serve as offsets to the receivable accounts. The balance sheet accounts with bad debt or uncollectible offsets include premiums receivable, agents' balances, collateral loans, and reinsurance recoverables.

For each of these balance sheet accounts, statutory accounting uses fixed formulas instead of relying on management disclosure. The assets not admitted by the statutory formula are still shown on the balance sheet, and they flow through the income statement. These amounts are shown as non-admitted assets in column 3 of the statutory balance sheet, and the year-to-year change in these non-admitted assets is a direct charge or credit to policyholders' surplus on line 25 of page 4 of the Annual Statement (carried from line 6, column 3, of Exhibit 1).

For instance, an estimate of agents' balances that may not be collected – but that have not yet been written off – is shown as a "bad debt" offset to premiums receivable in GAAP financial statements. On statutory statements, agents' balances more than 90 days past due are non-admitted assets.⁵⁰

A similar format applies to other receivable accounts. On GAAP financial statements, the accrued retrospective premium asset is offset by management's estimate of the amount that may not be collected. On statutory statements, 10% of the unsecured accrued retrospective premiums are not admitted.⁵¹

⁴⁹ The full paragraph 52 reads as follows: "The NAIC Annual Statement Instructions for Property and Casualty Companies for Schedule F—Provision for Overdue Reinsurance: provide for a minimum reserve for uncollectible reinsurance with an additional reserve required if an entity's experience indicates that a higher amount should be provided. The minimum reserve Provision for Reinsurance is recorded as a liability and the change between years is recorded as a gain or loss directly to unassigned funds (surplus). Any reserve over the minimum amount shall be recorded on the statement of income by reversing the accounts previously utilized to establish the reinsurance recoverable."

⁵⁰ If the company uses direct billing to the insured, only the premium balances more than 90 days past due in excess of the unearned premium reserve are not admitted.

⁵¹ Statutory accounting provides for an alternative quantification of the non-admitted portion of the accrued retrospective premium asset, based on the credit ratings of the insureds. See SSAP No. 66, "Retrospectively Rate Contracts," paragraph 9, subsection "d."

These examples reflect a fundamental difference in the GAAP versus SAP perspectives on the purpose of financial statements.

- GAAP financial statements are geared to current and potential investors in going-concern enterprises who seek information about the future profitability of the firm. Investors want unbiased estimates; they do not want conservative estimates or optimistic estimates. The firm's management has the understanding and information to provide good estimates. The fixed formulas used in statutory statements do not always provide unbiased estimates, and they might be misleading in a GAAP context.
- Statutory financial statements are geared to regulatory authorities. Regulators are not concerned about the profitability of going-concern firms; they are concerned about the potential insolvency of firms in financial distress. Distressed firms might have an incentive to overstate their assets or understate their liabilities, since unbiased estimates might provoke regulatory intervention in their operations. For these firms, regulators would not be fulfilling their responsibilities if they relied on the opinions of company management. Instead, they rely upon fixed formulas.

The U.S. capital markets and its legal system constrain a firm from entering misleading information into its general purpose (GAAP) financial statements. These constraints are strong, even if they are not perfect.

1. Firms depend on financial analysts to report on their stock prices, and financial analysts carefully review their financial statements. The retrospective accuracy of uncollectible offsets may be seen from a comparison of Note 22 to the Financial Statements with the provision for reinsurance. Consistently misleading entries in past financial statements may cause analysts to distrust management entries in current financial statements. In the long run, misleading accounting estimates may depress a firm's stock price.
2. A firm that knowingly misstates its general purpose financial statements is exposed to SEC penalties and to shareholder lawsuits. The personal assets of the firm's officers are not exposed to company losses, but they may be exposed to shareholder suits.
3. General purpose financial statements are audited by independent public accountants, who may be employees or officers of multi-national accounting firms. Both the assets and the reputations of the accounting firms are exposed to shareholder lawsuits resulting from misleading financial statements.

These constraints generally suffice for the financial statements of profitable and financially healthy firms. Distressed firms are less likely to feel constrained by the capital markets, and they are more willing to risk potential lawsuits.

Statutory Objectives

The rationale for the GAAP accounting philosophy is clear. The rationale for the statutory accounting philosophy is more problematic, for several reasons.

SUPPLEMENT VS REPLACEMENT

The statutory provision for reinsurance does not just supplement management's estimate of uncollectible reinsurance recoverables; the provision for reinsurance *replaces* management's estimate. Because the provision for reinsurance is conservative and its calculation is sometimes arbitrary, many users of statutory financial statements add back the provision for reinsurance to reported policyholders' surplus to determine a more realistic value for the firm.

Consider two insurers, Company A and Company B. Both companies have a \$100 million provision for reinsurance. Company A estimates the true uncollectible to be \$10 million. Company B estimates the true uncollectible to be \$90 million.

GAAP financial statements reflect this difference in the estimated uncollectibles. On statutory financial statements, both companies show the same \$100 million provision for reinsurance as an offset to policyholders' surplus. Neither company shows any offset to statutory income. Neither company discloses its true estimate of uncollectible reinsurance recoverables.

Readers of the statutory financial statements – including state insurance regulators – are interested in the true estimates of uncollectibility. Oftentimes, a result of the complex Schedule F formula may be to obscure more relevant estimates of uncollectibility.

Changing the provision for reinsurance into a supplement to management's estimate of potential uncollectibility instead of a replacement for management's estimate is not favored by some regulators. A supplemental format might encourage the perception that the GAAP procedure is correct and the statutory procedure is an arbitrary addition. A large difference between management's estimate and the provision for reinsurance may encourage readers of the Annual Statement to ignore the provision when evaluating company financial stability.

UNINTENDED CONSEQUENCES

The provision for reinsurance provides three intended incentives for insurance companies.

- The provision encourages ceding companies to prefer authorized reinsurers over unauthorized reinsurers, particularly if the latter do not fully collateralize their recoverables.
- The provision encourages ceding companies to seek collateral from unauthorized reinsurers and from slow-paying authorized reinsurers.
- The provision encourages ceding companies to demand timely payment of reinsurance recoverables.

These incentives are favorably viewed by many regulators. Some of the effects, such as more timely payment of reinsurance recoverables, are also desired by primary insurers.

The provision for reinsurance has some unintended consequences. Appropriate reinsurance arrangements are an effective means for an insurance company to manage its risk exposures. Unauthorized reinsurers sometimes provide better reinsurance arrangements or less expensive reinsurance arrangements than authorized reinsurers do. If the provision for reinsurance induces a ceding company to forego optimal reinsurance arrangements, the provision harms insurance consumers.⁵²

Securing reinsurance recoverables with letters of credit is not a costless panacea. A letter of credit may be expensive, particularly if the reinsurer's financial condition in an adverse scenario can not be foreseen. The increased cost associated with letters of credit may raise the price for the primary policy or may force the primary company to forego the purchase of reinsurance. Neither of these results serves the interest of insurance consumers.

The market for reinsurance is complex; ceding companies carefully weigh costs, risks, and accounting effects when choosing among reinsurance proposals. The incentives and disincentives listed above are not absolute; they must be considered among the other objectives of ceding companies.

ACCURACY

The Schedule F provision for reinsurance is a generic formula, and it may not always serve as a reasonable proxy for uncollectible reinsurance recoverables. The sharp demarcations (i) between authorized and unauthorized reinsurers and (ii) between slow-paying and non slow-paying reinsurers does not seem justified by complex and fluid reinsurance markets.

Illustration: Reinsurers A and B have similar capital structures and mixes of business; both reinsurers settle their claims in a timely fashion; and neither one provides any security backing its reinsurance liabilities. Reinsurer A is authorized in the primary company's domiciliary state and Reinsurer B is not authorized. The provision for reinsurance for the recoverables from Reinsurer A is negligible, whereas the provision for reinsurance for the recoverables from Reinsurer B is large. The Schedule F formula may not be an accurate reflection of potential uncollectibility problems.

The trigger for classification as a slow-paying reinsurer is viewed by some analysts as an arbitrary dividing line amidst a spectrum of reinsurers. A reinsurer with an overdue ratio of

⁵² Unauthorized reinsurers domiciled in tax havens or in countries with less stringent insurance regulation are particularly likely to offer less expensive reinsurance coverage, though U.S. regulators generally frown on their activities.

21% is classified as slow-paying, whereas a reinsurer with a ratio of 19% is not slow-paying. The difference in the provision for reinsurance is greater than the empirical data justify.

The parameters for the aging schedule and the overdue ratio were chosen subjectively; they were not based on statistical or actuarial analysis. The use of 90 days past due instead of 120 days past due, the trigger of a 20% overdue ratio, and the 20% factor for the provision for reinsurance are subjective choices. This contributes to the perception that the provision for reinsurance does not properly measure the potential reinsurance uncollectibility exposure.

INDICATORS OF UNCOLLECTIBILITY

Were the provision for reinsurance merely an unsuitable proxy for uncollectibility problems, the provision may have little benefit but it would also cause little harm. But the complex Schedule F calculations may foster a misleading aura of precision while obscuring more relevant indicators of potential uncollectibility. In the long run, Schedule F may hinder regulators from properly monitoring reinsurance uncollectibility problems. This is a serious drawback.

Two of the primary indicators of potential uncollectibility problems are (i) the capital structure of the reinsurer and (ii) the extent of the reinsurer's potential liabilities in an adverse scenario:

- Reinsurers with high ratios of capital to the amount of insurance in force are less likely to default on their reinsurance obligations.
- Reinsurers with high potential exposures to the same event through multiple channels are more likely to default on their reinsurance obligations.

The "multi-channel" effect illustrates the importance of accurate assessments of potential reinsurance obligations. A reinsurer may have prudently limited its exposures to windstorm claims from its own reinsureds. But if the reinsurer has accepted retrocessions from other reinsurers, or if it has participated in layers of coverage written by other reinsurers, its total exposure in an adverse scenario may not be manageable.⁵³

The experience of mortgage lenders and of bond rating organizations illustrates the use of financial ratios to estimate probabilities of default. Mortgage lenders consider (i) the ratio of equity in the home to the debt on the home and (ii) the ratio of the homeowner's monthly income to the monthly mortgage payment. Writers of mortgage insurance use these ratios, along with similar factors, to price mortgage guarantee insurance contracts.

⁵³ On multi-channel effects, see Daykin, Pentikäinen, and Pesonen [1994]. (Daykin, Chris D., Teivo Pentikäinen, and M. Pesonen, *Practical Risk Theory for Actuaries*, First Edition (Chapman and Hall, 1994).)

The economist's inference is that competitive markets provide incentives to accurately quantify risk. A statutory formula that is not well correlated with actual default rates may interfere with these incentives and lead to less efficient markets.

Bond rating organizations use a host of quantitative and qualitative factors to assign credit ratings to bond issues. The interest of creditors in commercial bond ratings parallels the interest of insurance regulators in estimates of reinsurance recoverables. Creditors (bondholders) adjust the interest rate in the bond indenture in anticipation of potential future default probabilities, just as primary insurance companies hold capital to guard against potential reinsurance uncollectibility problems.

Although bond ratings are not perfect, they correlate reasonably well with empirical default costs. Arbitrage opportunities in efficient capital markets force this outcome. To the extent that bond ratings deviate from the expected probabilities of default, market credit spreads widen or narrow.⁵⁴

The aging schedule of the reinsurer is simple to compute, but it may be less relevant to future uncollectibility problems than the capital structure of the reinsurer and its potential exposures in an adverse scenario. The NAIC should spend its resources exploring better predictors of uncollectibility problems instead of revising and enhancing the Schedule F exhibits.

THE REACH OF REGULATION

Experienced regulators are aware of these issues. The problem is not the accuracy of the formula but the reach of regulation.

To estimate reinsurance collectibility, regulators would prefer to examine the reinsurers, not the reinsureds. But reinsurance is a global market, and most large reinsurers are domiciled abroad. U.S. regulators lack authority to affect the operations of reinsurers that are not licensed in their states, even if the reinsurers are authorized to do business. They lack the information to examine the capital structures of these reinsurers or to estimate their potential liabilities after a major catastrophe.

U.S. regulators can examine the insurance operations of reinsurers domiciled or licensed in their states, and they do this when a domestic reinsurer seems financially troubled. But aggressive regulation of domestic reinsurers may hamper their ability to compete with their

⁵⁴ Deviations from empirical default costs are often externally imposed. For instance, many pension funds and other institutional fiduciaries do not purchase bonds that are below investment grade. These institutional investors may bid up the price of BBB bonds (the lowest investment grade rating) and bid down the price of BB bonds (the highest non-investment grade rating). This is particularly true when a BBB bond is downgraded to BB or when a BB bond is upgraded to BBB. As a result, BB bonds have slightly higher net returns (i.e., default adjusted returns) than do BBB bonds. In most financial markets, these effects are small.

European peers. Aggressive regulation may force domestic reinsurers to flee abroad to the Bahamas, the Cayman Islands, and similar sanctuaries.

Instead, state regulators regulate the reinsureds, not the reinsurers. By imposing a provision for reinsurance on unsecured recoverables from unauthorized reinsurers, regulators provide incentives to alien companies to seek authorization to sell reinsurance in the states or to provide collateral if they wish to remain unauthorized. This is a round-about means of reinsurance regulation, but it may be the best that state regulators can accomplish.

Securities regulation suggests that this not the best that insurance regulators can accomplish. Firms commonly open their books to rating agencies, such as Moody's or Standard & Poor's, and even pay for the financial examination, because they benefit from a good rating and because the financial examination is no more intrusive than it has to be. Many unauthorized reinsurers may do the same, if the state insurance examination is efficient and non-intrusive (unless warranted). Regulators would do well to seek the optimal methods to ensure financially sound reinsurance arrangements.

PROSPECTIVE VS RETROSPECTIVE RISKS

The major criticism of the provision for reinsurance is its misplaced focus. The most serious and controllable solvency risk for insurance companies is the lack of adequate reinsurance arrangements. This risk is a prospective one; it is the risk that the primary company has not adequately hedged its exposures to natural catastrophes or unforeseen claims.

Adequate reinsurance arrangements are the bedrock of insurance risk management. Many insurance company failures can be traced to poor handling of reinsurance, such as excessive retentions, inadequate limits, and failure to cover significant exposures. These are all pre-loss issues; once the loss has occurred, a regulator can do little to salvage a distressed company.

Neither the NAIC Annual Statement blank nor the NAIC risk-based capital formula attempts to measure the risks stemming from poor reinsurance arrangements.⁵⁵ Techniques for evaluating insurance company risk exposures are well established in private insurance and brokerage markets, even if they are sometimes hard to implement. Supervision of solvency risks should emphasize over-concentration of property exposures (a) in catastrophe prone areas, such as the Gulf Coast states of Florida, Texas, and Louisiana, (b) along known earthquake fault lines, or (c) within major urban areas. Excessive retentions and insufficient limits in excess-of-loss reinsurance treaties may reflect the ceding company's acceptance of undue risk in the hope of lowering its reinsurance costs and maximizing its net income.

⁵⁵ This is not a criticism of insurance regulators. The actuaries on the American Academy of Actuaries risk-based capital task force spent a year and a half discussing the risks of natural catastrophes and inappropriate reinsurance arrangements without producing any suggestions.

Overuse or underuse of facultative reinsurance placements may reflect underwriting inexperience, timidity, or overconfidence.

Once the loss has occurred and the Annual Statement has been filed, the damage has been done. Most losses from a September hurricane will have been settled by the end of the year. If the reinsurance protection was not adequate, the primary company may already be impaired; further monitoring of reinsurance recoverables has little benefit.

The zealous quantification of aging schedules and overdue amounts may distract regulators from monitoring the risks stemming from improper reinsurance arrangements. Instead of the current Part 3 of Schedule F, regulators would be better served by an exhibit showing the terms of the proportional and the non-proportional reinsurance treaties and the facultative placements of the reporting company. Such an exhibit would require considerable underwriting skill to interpret, but it would contain the information that regulators need to ensure the sound reinsurance arrangements that promote long-term insurance solvency.

Some companies may argue that a listing of reinsurance treaties and facultative placements without corresponding information about the amounts of insurance and the concentrations of risk by line of business and by geographic region is not sufficient to judge the adequacy of the reinsurance program. This argument has some truth, but it misses the role of regulation. Accounting entries by themselves are rarely sufficient to monitor insurance risks. The primary value of the accounting information is to highlight possible areas for further investigation.

- A primary company with low policy limits in its reinsurance treaties or with restrictive policy provisions may have exposures that reinsurers are reluctant to accept.
- A primary company with reinsurance ceded predominantly to off-shore reinsurers or to weakly capitalized reinsurers may have been unable to find domestic companies or financially stronger companies willing to accept the exposures.
- A primary company with reinsurance cessions significantly lower than the industry average for the size of its direct business may be retaining too much of its exposure.
- A primary company with its reinsurance concentrated in facultative placements instead of general treaties may have inadvertent gaps in its coverage.

Financially distressed companies often have their reinsurance treaties canceled. Established reinsurers may refuse to provide coverage at affordable prices. Reinsurance programs of financially distressed companies may exhibit several of the characteristics listed above. This information is highly valuable to solvency regulators.

Some industry personnel dislike public filings that reveal corporate underwriting strategies, treaty pricing, and reinsurance contract provisions. This is a valid concern. The most useful information for solvency monitoring is also the most proprietary information. Distressed companies have little incentive to publicize their distress. Public filings should include only

aggregate data that are of limited use to competitors. More accurate and revealing information is most suitable for non-public filings.

This alternative reinsurance schedule is appropriate for statutory financial statements, not for GAAP financial statements, for several reasons:

1. Reinsurance is peculiar to the insurance industry. GAAP statements are geared to general accounting, not to industry specific schedules.
2. A listing of reinsurance treaties and facultative placements requires considerable expertise to understand. It is valuable to insurance regulators and their staffs; it is of limited value to most security analysts. A security analyst with expertise in reinsurance contract terms can turn to the statutory blank.
3. The purchase of reinsurance is a trade-off between risk and return. Reinsurance reduces solvency risk, but it also reduces expected return. Equity investors are not necessarily displeased by companies pursuing aggressive and potentially risky strategies that generate high expected returns at the expense of higher default risk. Efficient diversification is done by the equity investor, not by company management. Investors often seek firms that pursue their strengths, not firms that diversify away from their core competencies. In contrast, policyholders are concerned with insolvency risk, not with the long-term expected return to the insurance company. Insurance regulators serve the interests of policyholders, not the interests of investors.

Reinsurance is the primary company tool for managing insurance risk, and reinsurance regulation is at the core of solvency regulation. The importance that state regulators place on reinsurance is reflected in the comprehensive exhibits of Schedule F.

Yet Schedule F is not perfect, and its exhibits are not necessarily the most effective means of reinsurance regulation. Better tools for solvency regulation are already available in actuarial models and in the underwriting practices of many companies. Both the industry and the public would gain from joint efforts by the actuarial and regulatory communities to enhance the reinsurance schedule in the Annual Statement.