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The purpose of RBC is to help regulators identify insurers that are in financial trouble and that need regulatory attention. It computes a minimum level of capital adequacy that a company must have to operate.

RBC is used to set capital requirements considering the size and degree of risk taken by the insurer. Risk-based capital is a rough measure of risk where each element of risk is assigned a "risk factor." Each risk factor is multiplied by some measure of volume for each risk class which are then added together resulting in a total "risk requirement" The major categories of risk include:

- Asset risk, which covers market and credit risks on balance sheet assets, including bonds, equities and other financial assets, as well as reinsurance receivables and investments in subsidiaries
- Insurance risk, which covers risks related to the underwriting and pricing of policies and contracts, as well as risks related to the adequacy of claims reserves
- Interest rate risk, which covers potential losses due to interest rate changes and asset/liability mismatch
- Business risk, which covers guaranty fund assessments and general business risks, such as litigation

The RBC Ratio is the main test used to determine whether a company's capital level is adequate given the size and degree of risk that firm has taken

RBC Ratio =	$\frac{\text{Equity}}{\text{Risk Charges}}$	=	$\frac{\text{Total Adjusted Capital (TAC)}}{\text{Risk-Based Capital (RBC)}}$
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The RBC requirement (level of capital required in view of risk undertaken) is calculated by multiplying risk factors times statement values, adding the results together, and then adjusting for covariance between major risk categories. The formula results are compared to the risk-adjusted capital of the insurer to develop the RBC ratio, which is the ratio of risk-adjusted capital to RBC. The ratio results are used to determine the degree to which an insurance company's surplus is impaired. The model act specifies a series of increasingly stringent regulatory responses, as the RBC ratio decreases below 200%. A trend test is included to test whether insurers that were between the 200% breakpoint and 250% level were trending downward, which will trigger regulatory action, but an RBC ratio over 250% for a life company is sufficient to receive a passing grade on this pass/fail test.

## Advantages of RBC

Supporters of the Risk-Based Capital system have pointed out that existing laws and rules were frustrating regulators who were trying to take corrective action when a company appeared to be in a hazardous situation. Company attorneys and other consultants could provide opposition preventing intervention by regulators until a firm's surplus had fallen below the statutory requirements.

Because of such delays the insurer would have little or no chance for remedying the situation before regulators gained control of the company. Earlier corrective action under RBC, it was argued, would allow earlier corrective action and thus prevent some insolvencies and improve chances for rehabilitation.

## Standards for RBC

Under the RBC requirements, each insurer calculates the amount of capital required for handling the total risk of the company. This figure is then compared by each company to its reported surplus. If the figure is below RBC, it is possible that the company is inadequately capitalized and needs regulatory and management action.

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There are four "action levels" under the NAIC RBC system.

- **Company Action Level (CAL).** If this level is reached, insurer is required to automatically submit a written, detailed business plan within 45 days that details the causes and actions that have led up to the capital impairment as well as a plan for the restructuring of the insurer's business to rebuild capital to acceptable levels. Alternatively, the company can detail plans to reduce its risk to a level commensurate with its actual capital level.
- **Regulatory Action Level (RAL).** In this case, insurer must conform to the requirements stated in the Company Action Level, and in addition is subject to an immediate regulatory audit. The regulator can then issue protective orders to force the insurer to either lower its risk profile or increase its capital to a level commensurate with its risk. A company that has reached the Company Action Level and that does not conform to the statutory requirements spelled out in the statute is also automatically deemed to have triggered the Regulatory Action Level.
- **Authorized Control Level (ACL)** is triggered by having statutory capital that is less than the Authorized Control Level RBC, as computed by the RBC formula or by failing to meet regulatory requirements imposed by the Regulatory Action Level. The Authorized Control Level is the capital level at which the state insurance commissioner is authorized, although not required, to place the insurance company under regulatory supervision.
- **Mandatory Control Level.** When that happens, the state regulator is required by statute to take steps to place the insurer under regulatory supervision.

### **Total Risk-Based Capital-**

Total RBC is calculated by multiplying the risk factors by some measure of volume for each risk class and adding together the resulting "risk requirements"

**Total Adjusted Capital-** Total Adjusted Capital (TAC) is made up primarily of capital and surplus, and the asset valuation reserve (AVR)

## Steps in RBC calculation

- Apply risk factors against annual statement values
- Sum risk amounts and adjust for statistical independence (using the covariance formula)
- Calculate Authorized Control Level Risk-Based Capital amount
- Compare ACL RBC to Adjusted Capital.

RBC Level	Required Action
Above 200%	No negative trend, No action
150% to 200%	Entity submits a plan to improve capital
100% to 150%	State regulator specifies corrective actions
70% to 100%	State regulator may take control of the entity
Below 70%	State regulator takes control of the entity

The goal is to determine the minimum amount of capital an insurer needs given its risks **Example-** At a 300% RBC level, a company holds \$3 of capital for every \$1 of “risk” assumed. RBC was designed to differentiate adequate capital from inadequate capital, but not to distinguish “good” from “better.” The ratio can be raised by either increasing total adjusted capital or by lowering risk based capital requirements. Action levels under the NAIC RBC system:

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Major categories in life RBC formula:

- C0 – Subsidiary Insurers Risk
- C1 – Asset Risk
- C2 – Insurance Risk
- C3 – Interest Rate Risk
- C4 – Business Risk

Major categories in property/casualty RBC formula:

- R0 – Subsidiary Insurers Risk
- R1 – Fixed Income Asset Risk
- R2 – Equity Asset Risk
- R3 – Credit Risk
- R4 – Insurance Risk – Reserve Development
- R5 – Insurance Risk – Written Premiums

Major categories in health RBC formula:

- H0 - Insurance Subsidiaries Risk
- H1 –Asset Risk
- H2 – Insurance Risk
- H3 – Credit Risk
- H4 – Business and Admin Expense Risk

Life asset risk accounted for:

- Defaults on Fixed Income Investments
- Changes in Market Value of Equity Investments
- Non-recoverability of Reinsurance Balances
- Company-Specific Experience (e.g., Mortgage Experience Adjustment)
- Over-Concentration in Specific Asset Investments
- Additional Risk from Affiliated Investments

Asset risks not accounted for:

- Market Value Adjustments
- Quality of Investments, although the following do adjustments do occur:
  - Bond Factors Differ By NAIC Rating Class
  - Mortgages In Default Have Higher Factors
  - Certain Types of Reinsurance Have Higher Factors
- Common Stock Diversification
- Interest Rate Risk
- Quality of Reinsurance
- Duration/Convexity Risk (not in the asset formula, and even in the C3 part, not directly)

## **CALCULATING RISKS UNDER RBC**

RBC is calculated by identifying an insurer's various activities that create risk. A weight is determined for each risk factor. The dollar amount of capital required to support the firm's activities in that risk factor's area is determined by multiplying the weight figure by the amount at risk. For life-health insurers the four risk factors are:

- asset risk
- insurance risk
- interest rate risk
- business risk.

To illustrate the risk factor calculation, one category of asset risk for a life-health insurer is common stock. Unaffiliated common stock has a risk factor or weight under the RBC classification of 30 percent. For a firm with \$1 million in unaffiliated common stock, RBC standards would require the company to have \$300,000 in available capital in order to qualify as supporting the risk of a

decrease in that stock's value.

### Examples of asset risk categories and their weights

bonds	0.3	to	30
common stock	30.0	to	100
off-balance sheet items	1.0		
preferred stock	5.0	to	30
real estate	10.0	to	15
mortgages (less than 90 days delinquent)	0.1	to	5
reinsurance	0.5		
separate accounts	0.3	to	100
surplus in non-guaranteed separate accounts	10.0		
schedule BA assets (other long-term assets)	20.0		
Concentration factor Increases other factors			

Six classes of bonds are weighted according to the probability of default, like the classes used on the annual statement ranking investment concentration from high grade to junk bonds. A formula is applied by the RBC ranging from 0.30 for riskier bonds to 0.003 for high-grade investments and nothing for government bonds.

Common stock is weighted at 30 percent for unaffiliated firms, going up to 100 percent for domestic and foreign affiliated insurers and affiliated investment subsidiaries. The preferred stock range is 5 percent for affiliated firms up to 30 percent for unaffiliated. Items classified as off-balance sheet are assets not under the company's control, contingent liabilities and guarantees for affiliated companies

Mortgages in general are ranked with those on farm property as the highest risk at 5 percent and city mortgages at 0.1 percent, but these rankings vary with individual companies' experience and an adjustment is provided to reflect this variation.

Real estate at 10 to 15 percent is scored less heavily than common stock as a less volatile asset and because of tax credits given for real estate losses. Properties acquired through debt satisfaction are ranked at the higher range. The reinsurance 0.5 percent charge is for amounts to be recovered from a reinsurer on separate accounts, in which policyholder funds bear most of the asset risk; a low weight is assigned except for situations involving contractual guarantees.

The concentration adjustment factor is used to reflect heavy concentration in particular assets. Weights are doubled for the ten largest investments in each asset category, with a cap of 30 percent on an individual asset's weight. This adjustment does not apply to investments with federal guarantees, policy loans and home office real estate. Category 1 bonds, preferred stock and other assets with an RBC weight of less than 1 percent are also excluded.

Capital needs in relation to the liabilities of a firm are quantified by the insurance risk adjustment. Variables examined for this risk are mortality and morbidity. Errors in pricing of products caused by statistical factors or inaccurate assumptions may affect both variables.

The net amount at risk, whether policies are individual or group, and the size of the insurance portfolio determine mortality weights. Weights decline as the net amount at risk increases because of reduced risk with larger volume. Life insurance has a weight of 0.15 percent on the first \$500,000 net at risk. When the net amount at risk exceeds \$25 billion, the weight decreases to 0.06 percent.

Morbidity weight is calculated according to premium volume and claim reserves. Premiums are for two classes, medical insurance and disability, with subdivisions into individual and group coverage. The highest capital charge of 35 percent is for noncancellable individual disability policies, and the lowest of 7 percent for group major medical and hospital policies with benefits based on usual and customary charges. A capital charge equal to 5 percent of individual, group and credit claim reserves is also made.

An interest rate risk is created by the possibility that rising rates would encourage more policyholders to withdraw funds than expected. If such an action went beyond the level anticipated in the investment strategy of the insurer, it might result in liquidation of assets that were bringing more favorable returns than those that would replace them. Life insurance long-term contracts, many of them involving a savings element, if terminated early might prove costly for the insurer.

Termination of a number of single premium deferred annuities early would require the insurer to pay contract holders the agreed amount and produce an unusually large demand for cash. The company might be forced to sell assets, perhaps at a loss, if cash reserves were inadequate. A reduction in income and therefore in capital would result. Companies have to hold capital to avoid such a contingency.

An increase in interest rates, to summarize, reduces the market value of a large number of assets for most life insurance companies. This decline in asset value results in a decline in the company's surplus and requires holding capital to allow for this possibility.

Because of the interest rate increase risk, policies are divided into three risk categories based on the withdrawal provisions. Annuity reserves not subject to withdrawal at the policyholder's discretion are a low-risk product. Annuity reserves with a provision for a surrender charge of 5 percent or more make up the medium risk category. High risk policies carry a surrender charge of less than 5 percent. A 50 percent surcharge may be added if the company does not submit an unqualified actuarial opinion regarding adequacy of its reserves.

A final grouping for risks not included in other categories was made as NAIC officials attempted to identify other business risks common to all insurers and susceptible to objective classification. State guarantee fund exposures come under the business risk heading. In most states, insolvency funds have been set up to meet claims which bankrupt insurers could not pay. These are financed generally by assessing the necessary amounts against the state's solvent insurers. The individual company's market share determines the size of its assessment

Reserves for losses on real estate and mortgages are included in the business risk category. Premium stabilization reserves and a portion of the liability for dividends to participating policyholders also fall under this heading.

In case of simultaneous adverse events under different risk factors, a formula specified by the RBC Working Groups included a covariance adjustment to reduce the capital charge for each factor. This would prevent double counting of risks measured by more than one of the four factors when adding them together.

## Property-Casualty Risk Factors

The property-casualty risk-based capital system has a different structure from that of the life-health system, although their goals are the same. Contractual promises are different in the two, and the triggering coverage varies. Life insurance claims are long-term and predictable in comparison with those in property-casualty lines, which have uncertain ultimate liability costs. When a claim is made on a life insurance policy, the beneficiary is paid the face amount of the policy with any outstanding loans subtracted. In contrast, the cost of settling property-liability claims is uncertain in timing and hard to predict in amount. The cost in third-party claims like product liability or medical malpractice may approach disastrous proportions. Thus while asset risk is a major consideration for life-health insurers, underwriting risk most concerns property-casualty firms. The risk factors used for property-casualty insurers' calculation of capital needs under RBC are:

- asset risk
- credit risk
- underwriting risk

Asset risk includes exposure to market declines, default and illiquidity. Changes in market value of bonds on asset valuation in balance sheets have been minimized in the past by the accounting convention of valuing bonds on an amortized basis. This practice reduced variability on financial statements but distorted the true economic position of the insurer. A change to requiring that bonds be reported at their market value is under consideration. If this change is made it will add to the importance of the capital charge required to support asset risk.

Requirements for common stock depend on whether the firms are affiliated. An affiliate's stock must equal the amount of risk-based capital that would be required of the affiliate under the RBC formula. Property-casualty insurers invest substantially in common stock, and in developing the asset risk component of the RBC formula there was controversy over the weight given to common stock. The 30 percent weight required for life-health insurers would have had a significant negative effect on common stock investments by property-casualty insurers. After comments and public hearings, the RBC property-casualty working group changed the factor to a 15 percent weight.

Accounts receivable from agents and reinsurers as well as other creditors are included in the credit risk category. Agents or managing general agents are often used by independent agency companies to bill policyholders for premiums and then forward the money collected to the insurer. There is a risk that agents might default on premiums due the insurer. Also if a reinsurer defaults on amounts due, that loss is included in credit risk. It was believed by the NAIC that the loss from reinsurers was substantially higher than that on receivables from agents.

Two areas affect the level of underwriting risk for property-casualty insurers, making it higher than that faced by life insurers. Price risk involves the higher variability in property-casualty premium price levels. Reserve risk refers to the possible understatement of loss and loss adjustment reserves. Both price risk and reserve risk vary by lines of insurance.

A pricing cycle characterized by large swings in insurance pricing and product availability is a well known phenomenon in the property-casualty market. This swing results from competition and interest rate changes.

Economic cycles affected competition in commercial lines over the last two decades, causing

property-casualty policy prices to drop to unprofitable levels. RBC capital requirements were established to cope with price wars through explicit charges based on premiums written and unearned premiums, varying by lines of insurance. Capital charges to cover reserve risk also vary by insurance lines.

## **Factors Combined**

Industry and company-specific factors are combined in setting standards for capital required to support price risk. Varying by line of insurance, a standard factor of 70 percent to 130 percent is applied to all companies. Homeowners insurance is weighted at 75 percent and medical malpractice insurance at 130 percent.

The individual company's underwriting expense ratio less 100 percent is used as a constant to be added to the standard factor. The result is multiplied by the net figure for premiums written. A homeowner's insurer might develop an RBC requirement of 5 percent, reflecting a 30 percent underwriting expense ratio plus the 75 percent standard industry ratio minus 100. The 5 percent requirement would be multiplied by the net written premium figure for homeowners insurance in order to obtain the amount of capital needed to meet RBC requirements.

For a medical malpractice insurer with a 30 percent underwriting expense ratio, this figure would be added to the 130 percent standard industry ratio and with the 100 percent subtracted would give a capital requirement of 60 percent of net premiums written. The figure indicates the higher volatility in premiums and losses characterizing malpractice insurance in comparison with homeowners insurance.

## **Reserve Requirements**

Reserve risk charges, also varying by line of insurance, are based on industry experience over the previous ten years. Homeowners, private passenger automobile and workers compensation insurance all carry a capital charge equal to 10 percent of net reserves. For commercial automobile and medical malpractice insurance, the charge is 15 percent. Commercial multiple peril insurance carries a 25 percent capital charge.

## **Sources for Data**

A permanent task force has been set up to refine the RBC formulas and their instructions as needed during their implementation. The primary source of data for the RBC formulas is the NAIC Annual Statement, but additional data must be submitted by insurers for RBC information. RBC weights will be revised as necessary for more effective regulation.

Meantime the RBC formula is not to be used as a rating or ranking tool, according to the NAIC Working Group. Relative strengths of individual insurers are to be determined by qualitative assessments. These include quality of management, quantity and quality of business planning, valuation assumption for policy reserves, quality differences in real estate holdings, management practices in addressing problem mortgages, and type of capital structure as reflected in the use of surplus notes and financial reinsurance.

## **Effects of RBC**

Long-term effects of risk-based capital requirements on the insurance business remain to be determined, but it is believed RBC will accelerate the "flight to quality," a trend to investing in higher quality assets and dependable reinsurance which became apparent among insurers in the early 1990s. Preliminary tests have indicated a larger than expected variation between ratings by agencies and the RBC ratings. Use of RBC might cause rating agencies to reexamine their solvency testing systems.

In spite of advice by the NAIC Working Group, it seems that RBC rankings will have an effect on prospective policyholders. Of two insurers, one with a surplus to RBC ratio of 80 and the other with a 120 ratio, a consumer interested in safety would rank the firm with the 120 ratio above the one with the 80 ratio. Even with two companies with ratios of 160 and 200, both far exceeding the risk-based capital requirement, a consumer would prefer the one with the higher ranking.

## **Backlash Possible**

On the other hand, there might be a backlash if consumer groups attacked strongly capitalized firms for having too much capital, claiming that the excess amount of capital should go to the policyholders. There might be a call for a special dividend distribution to present and former policyholders. Such a result might lead to the development of an optimal risk-based capital concept, aiming for an amount high enough to meet the market demand for quality but not high enough to be attacked for being too selfish.

Another result of too high RBC ratios might be an inadequate return on equity, which would lead to more pressure for reducing capital. Also a challenge to RBC standards will be probable efforts by some firms to find loopholes for beating the system. There might be restructuring of relationships with affiliates or invention of new securities or insurance policies with lower capital requirements. Regulators will need to meet new changes in fine-tuning the new mechanics for insurance company solvency monitoring.

## **Covariance Adjustment**

The square root calculation within the RBC formula is commonly referred to as the "covariance adjustment." It is similar to the concept of the standard deviation from the mean. Rather than summing up the individual risk charges (R1 through R5), it is assumed that the individual risk charge categories are independent of one another. That is, the formula reflects diversification among these risk categories, thereby assuming that the aggregate risk is less than the sum of risk of the independent components. This is considered to be a reasonable assumption. For example, the risk of default on an insurance company's invested assets (e.g., bonds, stocks) is independent of the performance of its loss reserves. Taking the square root of the sum of the squares for R1 through R5 increases the dependency of the larger risks in the calculation and decreases the significance of the smaller risk categories in the overall aggregate RBC requirement.

R0 is kept outside of the covariance adjustment because the risk for investments in insurance company subsidiaries is believed to be directly correlated with the combination of the risks specific to the reporting entity (i.e., the other risk charges R1 through R5). Therefore, the risk for investments in insurance company subsidiaries is additive to the aggregate of the investment and underwriting risks of the reporting entity for which RBC is being calculated.

R1, Asset Risk, Fixed Income contributes little to nothing to the overall RBC charge (industry-wide) because property/casualty insurers tend to invest in relatively safe, high credit quality bonds. Investments in bonds of unaffiliated entities represented over half the risk charge within the R1 category for the industry.

R3, Asset Risk, Credit contributes close to 1% to the overall RBC charge since provision for reinsurance is subtracted from the charge for reinsurance recoverables to avoid double counting the provision for reinsurance, which is included in reserves.

When evaluating RBC the following should be kept in mind;

Affiliate: general term that includes parents, subsidiaries and controlled companies.

Parent: An entity that directly or indirectly owns and controls the reporting entity

Subsidiary: An entity that is, directly or indirectly, owned and controlled by the reporting entity.

Control: hold proxies representing 10% or more or voting interests of the entity.

An investment affiliate is an affiliate that exists only to invest the funds of the parent company. An investment affiliate shall not include any broker-dealer or a money management fund managing funds other than those of the parent company.

The RBC factors for unaffiliated bond investments are determined based on cash flow modeling using historically adjusted default rates for each bond category.

The bond size factor measures the degree of diversification in the investment portfolio.

The risks associated with Off Balance Sheet Collateral and Schedule DL, Part 1, is that the reporting entity will lose money on the reinvestment of collateral posted by the borrower.

## **Risk Factors**

The purpose of the Asset Concentration Factor is to reflect the increased risk associated with large concentrations in single issuers and to create an incentive for insurers to diversify their investment portfolios.

Credit risk reflects counterparty (the entity owing the insurance company money) credit exposure for receivables, including those for reinsurance. It contemplates the risk that the counterparty will default (or not pay in whole or in part) and the risk associated with estimating the amounts recorded for counterparty receivables.

The risk that comprises the largest portion of R3 industry-wide is the risk associated with uncollectible reinsurance (due both to reinsurers unable and unwilling to pay) comprised the largest portion of the R3 charge

A criticism by insurance carriers of the 10% RBC charge for reinsurance recoverables is that the charge doesn't differentiate between highly rated reinsurers or those recoverable that are backed by collateral.

The reinsurance RBC within R4 is equal to the other half of the reinsurance recoverable amount computed in R3 unless the reserve RBC is less than the RBC for reinsurance plus non-invested assets. If this is the case, the entire reinsurance RBC charge is included in R3 and the reinsurance RBC within R4 is zero. The reserve RBC limitation is put in place so the insurance company cannot diversify away a portion of its credit risk in the situation where the company has limited net reserves.

For the R4 Reserve RBC factor, nominal (undiscounted) reserves are used because consideration for investment income is made by applying the same set of discount factors to all property/casualty insurance companies (called the adjustment for investment income).

The use of a common method for considering investment income puts all property/casualty companies on an equivalent basis rather than having differences due to discount rates and payout patterns.

For the R4 Base loss and LAE reserve RBC by line of business, the industry reserve RBC percentage factor, by line of business, is a component in the Company RBC ratio calculation. The Industry reserve RBC factor is selected based on the average for all companies within the property/casualty insurance industry by line of business. For the R4 Base loss and LAE reserve RBC by line of business, the investment income are provided by the NAIC and the discount factors assume a 5% interest rate.

The calculation of the Adjustment for investment income for R5 (that is, the Written Premium R5 RBC charge), uses the same assumptions as used in the reserve RBC, R4, with the exception that discounted years differ since written premium is discounted as opposed to reserves.

An adjustment is made for loss-sensitive business in R4 and R5. The loss experience is shared in whole or in part with the insured. Therefore, the risk of adverse loss development is also shared with the insured. In addition, the insurer would need less surplus capital to survive this risk of adverse loss development than it does if none of the policies were written on a loss sensitive basis. This results in a discount to the company's RBC reserve charge to reflect this reduction in risk.

In the formula for Adjustment for Loss Concentration in R4, the interdependence between lines of business must be recognized. Since all adverse loss development may not always be a random fluctuation in losses, such as when the company increases loss reserves to improve its earnings position, adverse development across lines may not be totally independent. In the formula, the interdependence is recognized in the .7 number. It reduces the discount and would reduce it more if it was higher.

The reasons for the Excessive Premium Growth charge in R4 and R5 are:

- An insurance company does not have as much insight into new business as it does into risks that are currently on the books.
- The estimation of unpaid claims is more difficult for a growing company rather than a company in a steady state.

The Excessive Premium Growth charge in R4 and R5 is calculated on an insurance group basis. The group basis is used to neither punish nor reward individual legal entities that might be growing due to a realignment of business from one company within the group to another. In this case the growth is not attributed to new business but rather a transfer or risks from one company to the other.

## **Early Warning**

The trend test is an early warning of companies that may be on a path to incur an RBC ratio below 200%, thereby triggering the company action level. Companies meeting the trend test criteria are required to comply with the company action level requirements despite having a RBC ratio in excess of 200%.

A company having a RBC ratio of between 200% and 300% and a combined ratio greater than 120% are subject to a trend test.

The combined ratio is calculated as the sum of:

- Loss and LAE ratio = calendar year net incurred loss and LAE / net earned premium from the Statement of Income
- Dividend ratio = policyholders dividends / net earned premium from the Statement of Income
- Expense ratio = (underwriting expenses incurred + aggregate write-ins for underwriting deductions from the Statement of Income) / net written premiums from the U&IE.

There is no charge for interest rate risk. There is no RBC category for adverse effects on a company's statutory surplus that may be caused by a shift in market interest rates. There is no RBC charge nor is there a risk category for receivables arising from intercompany pooling arrangements.

Companies differ in their reserve estimation procedures, so some companies report less adequate reserves than others and show adverse development in subsequent years. In addition, companies differ in the types of risks they write. An impetus for the development of RBC standards and requirements was the hesitancy of many state insurance departments to take action against financially troubled companies,

The IRIS test array is also intended to assist state insurance departments in evaluation of the financial condition of insurance companies.

The two perspectives on financial health measured by the statutory financial statement are balance sheet strength and earnings potential.

The IRIS ratios focus on balance sheet strength and the earnings quality through measures that assess growth, profitability, liquidity, and reserve development/adequacy.

RBC is another tool that considers balance sheet strength and future earnings. Balance sheet risk is considered in the asset reserve risk charges (R0 through R4), while profitability of future writings is contemplated through the written premium risk charge (R5).

The RBC and IRIS ratios measure different things. RBC considers the risks and relative size of an insurance company in computing a required level of capital, whereas under IRIS, no adjustments are made to reflect what would be "usual" for an individual insurance company.

Unlike IRIS, there is a direct link to regulatory intervention based on a comparison of the RBC required capital to the company's adjusted capital.

RBC is not a fail-safe test for financial impairment. The majority of the factors used to determine the level of required capital are based on industry-wide factors developed by the NAIC. As a result, while a company's RBC ratios may not require any specific action by the company management or regulatory authorities, this doesn't mean that the company is safe from future impairment.

## **Improve Ratios**

Companies can do the following to improve their RBC ratios:

- Enhance capital
  - Receive investment from a parent company (i.e., get cash infusion into surplus)

- Use reinsurance
- Structure financing
- Restructure asset portfolio (change investments)
  - Choose higher quality assets
  - Diversify portfolio These remedies do work, but implementing them can create problems: recognition of capital losses, lower yields may result, and there will be expenses
- Reorganize affiliates
- Restructure liabilities
  - Reduce excess liabilities
  - Reduce growth in surplus-intensive products
  - Use reinsurance or pooling
  - Write liabilities that use the properties of the covariance formula.

Quota-share reinsurance affects investment risk and liability risk and can be used as an RBC management tool. Reinsurance on a block of in-force insurance gives a reduction in required RBC. The ceding company is paid for profits embedded in business. Here are the advantages of reinsurance for RBC management:

- Policyholders will understand it and not perceive it as a cause for a run-on-the-bank
- Reinsurer pays the ceding company a ceding allowance, and an ongoing allowance for expenses, so the ceding company still enjoys economies of scale.

Example 1: Shin Plaster Accident and Health Insurance has capital of 10, C1 reinsurance credit is 0.50%, and its original RBC position is as follows:

Risk	Amount	Factor	Category RBC
C1	50	0.60%	0.30
C2 (premium)	30	25.00%	7.50
C2 (amount at risk)	35	5.00%	1.75
C3e	0	0.00%	0.00
C4	30	0.50%	0.20
		ACL RBC =	4.70
		RBC Ratio =	213%

$$\text{ACL RBC} = \frac{1}{2}(\sqrt{(0.30 + 0.00)^2 + (7.50 + 1.75)^2} + 0.20) = 4.70$$

$$\text{RBC Ratio} = \frac{10}{4.70} = 213\%$$

If Shin Plaster Ins contracts for 10% coinsurance, the new RBC is:

Risk	Amount	Factor	Category RBC
C1	50	0.59994%	0.29997
C2 (premium)	90% (30)=27.00	25.00%	6.80
C2 (amount at risk)	90% (35)=31.50	5.00%	1.60
C3	90% (0)= 0	0.00%	0.00
C4	30 (unchanged)	0.50%	0.20
		ACL RBC =	4.24
		RBC Ratio =	236%

The C4 amount is unchanged, because this is indemnity contract, not assumption. The C1 amount is  $0.30 - 10\%(0.60\% - 0.50\%)0.30 = 0.29997$ .

With 20% coinsurance the results are as follows:

Risk	Amount	Factor	Category RBC
C1	50	0.59994%	0.29994
C2 (premium)	80% (30)=27.00	25.00%	6.00
C2 (amount at risk)	80% (35)=31.50	5%	1.40
C3	80% (0)= 0	0.00%	0.00
C4	30 (unchanged)	0.50%	0.20
		ACL RBC =	3.78
		RBC Ratio =	265%

## EXPANSION METHODS

State regulators and company managers expect net worth of insurers to grow as the company grows, even though legal minimum capital and surplus levels required for new insurance firms also apply to experienced insurers. When premium volume, management competency and operating complexity for the insurer are increasing, the relationship of premiums written to policyholders' surplus is still used to judge whether capital and surplus are adequate in an expanding company.

A smaller insurer might experience enlarged sales after undergoing surplus losses because of cyclical earning patterns, and thus show even larger surplus ratios than a long established firm. A company wishing to expand its market share with rapid sales expansion might find the existing surplus insufficient to support the needed growth. The company might then need to change its financial structure by increasing its equity bases, which can be accomplished in several ways.

Although property-liability insurers traditionally have relied on internally generated profits for growth, their retained earnings might be inadequate to sustain rapid increases in premium volume caused by such trends as increases in property value, higher liability coverages and upward adjustments in premium rates. A company in this situation might try to secure more capital from existing owners or from the capital markets.

The most direct way to raise external equity capital is with a new issue of common stock, but the potential for dilution in earnings and ownership might not be agreeable to stockholders. Also the cost might be high in comparison with other alternatives.

Many other financial instruments commonly used by noninsurance companies for raising capital also can be used by insurers. Debentures, preferred stock, and other fixed income instruments can be issued directly by an insurer. The funds obtained can be included in policyholders' surplus with an explanatory footnote.

## Aid From Parent Company

A holding company parent of an insurer can issue bonds and pass the proceeds on to the insurer with the purchase of more of its common stock. Public financial markets might be receptive to the idea of providing capital to an insurer in this way. Tax code changes have encouraged rapid expansion of premium volume by property-liability insurance company subsidiaries that can operate at a tax loss and provide their parent industrial company with a tax shelter.

Many factors could influence the exact methods used by a company for capital enhancement, but management presumably tries minimizing the weighted average cost of capital to the corporation while at the same time providing the capital infusion needed to meet growth aims. It should not, however, be assumed because a parent corporation is able to supply funds to a subsidiary insurance company, that this is a legal obligation. The parent company is not required to rescue a financially endangered subsidiary, although such events may occur frequently.

## **EXAMINATION BY DEPTS. OF INSURANCE**

Insurance commissioners of individual states are required or permitted by law to perform periodic examinations of the finances and conduct of all insurance companies that are authorized to operate in the state. Usually the requirement is for examination of all domestic insurers at least once every three to five years. A state examination also can be ordered whenever regulators find it expedient. Foreign and alien insurers also are examined periodically in conformance with NAIC zone examinations.

### **Examination Purposes**

Financial examinations by state insurance departments are designed to make it possible to identify as early as possible insurers who may be experiencing financial difficulties or following improper or unlawful procedures. The examinations also have the purpose of confirming that companies subject to state regulation are operating and reporting according to the uniform accounting instructions from NAIC for completion of the annual statement.

A report on the result of an examination is prepared by insurance department examiners. It is required in some states that this report or a summary of it be read at the first meeting of the board of directors of the insurer after receipt of the report. A copy of the report also must be furnished to each director of the firm in order to notify board members including outside directors about the financial condition and activities of the insurer. Thus the company is helped to protect interests of policyholders and stockholders at the same time regulators are kept informed.

### **Procedures for Examination**

Examiners from the state insurance regulatory agency, usually civil service employees, conduct state financial examinations for insurers. The state usually bills the insurance company for the examiner's salary plus an added factor to cover insurance department overhead and employee benefit costs. The insurer being examined furnishes facilities and supplies for the examination, which is usually done in insurance companies' home and branch offices. Examinations for large property-liability insurers may last as long as a year.

Information is often requested from an insurance company scheduled for examination before the examiners' visit. Such information might include reports from the company's independent public accountants, working papers from internal audits or other management information. Examiners can review this material before visiting the company so as to focus on potential problems and reduce the time and cost of the examination procedure. Close cooperation between insurance company employees and examiners is essential for saving time and expenses.

## **Examination Revisions**

With the aim of discouraging duplication of previous years' reports and encouraging disclosure of current company difficulties or unlawful and improper activities, regulatory procedures have been restructured in recent years and the format of the report on examination has been changed. There is increased reliance on independent audits of insurance company financial statements. Every insurer required to file an annual statement must have an annual audit by an independent certified public accountant satisfactory to the commissioner of insurance and must submit an audited financial report as a supplement to the annual statement.

There has been a large degree of overlap in examinations performed by inside auditors, independent public accountants, state agencies in addition to the insurance commission, and the Internal Revenue Service. Insurance regulators have reevaluated procedures and purposes of field examinations of insurance companies and the resulting reports.

The practice of filing annual audit reports prepared by independent certified public accountants allows insurance departments to spend less time on financial verification in order to target efforts on aspects of operations by the company that have the greatest effect on policyholders' surplus. Still, field examinations of all insurers doing business in a state are needed to examine market conduct and help determine insurers' financial status. An Enron or Madoff doppelganger in the insurance industry would benefit no one.

## **DIAGNOSTIC TESTS DEVELOPED**

A set of financial relationship tests developed by the NAIC evolved as diagnostic tools for evaluating insurance company strength. More than two dozen diagnostic tests were first suggested. This number was reduced through the years because of insufficient staff in many insurance regulatory departments and because there was disagreement about the significance of some relationships being tested.

The diagnostic tests, first called solidity or solvency tests, did not provide a direct measure of solvency. Collectively they became known as an early warning system. They developed into two sets of separate but similar tests, one for property-liability insurance companies and one for life-health insurance companies. Since 1975 these have been called the Insurance Regulatory Information System or IRIS tests.

## **IRIS Purposes**

Early identification of companies that might need close surveillance by insurance regulators is the primary purpose of the IRIS tests. They signal a need for more thoroughly inquiring into the status and operations of the company. Also they might help suggest what specific areas are in need of immediate attention. Priorities for scheduling special on-site examinations can be based on results. The tests are only supplements for traditional forms of financial surveillance and not a substitute for field examinations or timely audits of annual statements.

Members are advised by the NAIC not to use IRIS test results as the only basis for key decisions such as determining whether to issue or renew a company's certificate of authority to conduct insurance operations in the state. The NAIC also advises that test results should be interpreted by experienced examiners familiar with the company's annual statements. In spite of this advice, however, a survey of state insurance departments found 70 percent of respondents using the tests to determine whether companies should be authorized to write insurance.

This practice, it has been argued by critics of the present system of solvency surveillance, implies that state insurance departments are failing to perform traditional surveillance properly. Regulatory tests simply manipulate data readily available in annual statements filed with each state and do not furnish additional raw data. They do not change the ability of the regulator to use administrative powers, but add a layer of regulation on an already deficient solvency maintenance system. The tests are, however, helpful in directing the attention of examiners to specific areas of inquiry and furnish a quick indication of which companies need more detailed examination.

## **How the System Works**

The NAIC requests or requires each insurance company to file its annual statement with the NAIC Support and Services Offices for processing the financial data and performing the regulatory tests. Exemptions from the filing requirement are given by state insurance departments to some insurers with operations that are geographically limited, such as single-state companies or county mutuals.

A fee is paid by each filing company to the NAIC to cover costs of the IRIS program. Fees are determined by premium volume. Results are reported to the insurance departments of states where the tested insurers operate.

Establishing test values which will be meaningful is the key to the IRIS system, as the definition of normal and exceptional values is the basis for discriminating between insurers in need of immediate scrutiny and those needing only normal supervision.

When the value calculated for data from an insurer falls outside the usual range for that statistic, an unsatisfactory test result, that is, one indicating "exceptional value," is obtained. The usual range is defined as including results expected from the majority of companies during a normal year. Greater numbers of companies thus can be expected to fall outside the usual range in years of unusual economic conditions. Four or more test results outside the usual range result in the classification of an insurer as a priority company. For a company with less than four but with some statistical results outside the usual range, the tests are considered as identifying specific areas that should be investigated further when the normal examination process is under way

## **Two Phases Set Up**

Two phases have been included in the IRIS system since 1978. The initial phase is the statistical one in which financial ratios and related data for all companies and groups in the system are developed. These results are fed into the second or analytical phase for experienced financial examiners to review. All companies that required immediate attention of regulators in the previous year and all that received four or more test scores outside the usual range of values are given special attention and are classified on the basis of test results and other information as first priority, second priority and third priority. An insurer not classified in these three groups is in the category of no priority and is reviewed on a basis of the state's normal priority.

Examiners issue commentaries explaining the priority classification and send them to the insurance department in the state where the company is domiciled as well as to the company being examined. Copies are also sent to all other state insurance departments at least two weeks later. The commentaries explain the examiners' reasoning if companies with four or more test results outside the usual range are not identified in the IRIS analytical phase as due for immediate or targeted attention from regulators.

## Test Classification

IRIS tests are classified into four groups made up the examinations for property-liability insurers as follows:

1. Overall Tests: Premium-to-surplus ratio, change in writings, surplus aid-to-surplus ratio.
2. Profitability Tests: Two-year overall operating ratio, investment yield, change in surplus
3. Liquidity Tests: Liabilities-to-liquid assets ratio, agents' balance-to-surplus ratio.
4. Reserve Tests: One-year reserve development to surplus ratio, two-year reserve development to surplus ratio, estimated current reserve deficiency to surplus ratio

Means and medians were calculated for all company ratio results. For all ratios except investment yield, ratio results equal to -99.0 and 999 were excluded. For the investment yield ratio the minimum value was 0 and there was no maximum.

## Life-Health Firm Results

A summary of IRIS results for life and health insurers showing mean and median figures included the following tests for which all company ratio results were included:

- Net change in capital and surplus, gross change in capital and surplus
- net gain to total income
- adequacy of investment income
- nonadmitted to admitted assets
- real estate to capital and surplus
- investments in affiliates to capital
- surplus relief
- change in premium
- change in reserving ratio

For change in product mix and change in asset mix on life and health IRIS tests, ratio results equal to -99.0 and 999 were excluded. Ratio results are published by the NAIC Regulatory Information System.

## RECORD OF SOLVENCY

As discussed above, management tools provided by actuarial science and modern financial techniques give insurance firms some guidance in making decisions involving net worth levels and alternative capital structures, but these methods have limitations.

To be able to make a precise calculation of the best capital and surplus levels for both new and established insurance companies would be of great benefit to all concerned, but that goal has not yet been reached. Neither government regulation nor the best quality management can guarantee that an insurance operation will be spared financial setbacks or even total disaster. Because of solvency guarantees by industry members and efforts of regulators, in most cases of insurance firm failure significant economic loss to policyholders has been prevented. This result has not been accomplished, however, without delays, uncertainty and worry with regard to the financial strength of the industry.

## **Economic Effects**

From 2011 through 2013, 28 property and casualty companies went into liquidation. In 2011 and 2012 the guaranty funds recovered assets from the insolvent companies' estates more than \$475 million and \$456 million, respectively. To support the solvency guaranty system, 2014 estate guaranty fund distributions totaled more than \$494 million.

## **Number of Insolvencies**

Data from the National Conference of Insurance Guaranty Funds show that in 2012 state guaranty funds assessed insurers \$311.7 million to pay for insolvencies, an increase of 10.5 percent over the 2011 amount and more than triple 1996 when assessments totaled \$95 million. Assessments may fund earlier insolvency expenditures as well as current year costs.

The regulation of insurance company solvency is a function of the state and will continue to be so under the new financial services reform law. State regulators monitor the financial health of companies licensed to do business in their state. With the passage of financial services reform which allows insurance companies and banks to engage in a broad range of financial services and the globalization of insurance, there has been renewed interest on the part of some segments of the insurance industry in federal regulation.

## **Insolvency Factors**

Ineptness and dishonesty were among the factors frequently identified in the management of insurance companies headed for failure. Repeated instances of excessive commissions or management allowances were reported, along with improper underwriting, reserving and claims handling. The financial condition of reinsurers was a factor. There were also inadequate expense controls, questionable investments and abnormal transactions with agents, brokers or reinsurers.

A General Accounting Office (GAO) report on insolvencies noted that insolvencies generally follow the property/casualty insurance company profitability cycle. The GAO report also pointed out that the profile of insolvent companies has changed over the years. In the late 1960s and 1970s, insolvencies occurred mainly among small auto insurers with a limited geographical span. Since that period, the characteristics of insolvent insurers have become more diverse and have included some large multi-state companies. The incidence of large company insolvencies has prompted concern over the ability of the guaranty fund system to pay all covered claims, the report said.

The insolvencies of four large insurers and the fallout from the savings and loan crisis prompted a congressional study which culminated in the oft-cited "Failed Promises: Insurance Company Insolvencies." Known as the Dingell Report; named after the chairman of the committee that investigated the insolvency cases, Rep. John Dingell (D-MI), the study looked at the insolvencies of Mission Insurance Co., and Transit Casualty Co., both with headquarters in California although Transit Casualty was chartered in Missouri, Integrity Insurance Co. of New Jersey and Anglo-American Insurance Co. of Texas and found what it called "disturbing" parallels between the mismanagement and fraudulent activity that led to the four insurer insolvencies and the factors that precipitated the savings and loan crisis. Specifically, it attributed the insurance company failures to rapid expansion, unsupervised delegation of authority, extensive and complex reinsurance arrangements, underpricing, reserve problems, false reports, reckless management, incompetence, fraud, greed, and self-dealing.

## **COMPARISON- BANK & INSURANCE REGULATORY FRAMEWORKS**

This section points out advances in the insurance and banking regulators' understanding of each other's approaches for identifying and supervising financially weakened institutions and enhances coordination between the state insurance departments and the FRS, consistent with the GLB Act mandates for supervision of FHCs. In addition, many other efforts between the FRS and the state insurance supervisors, including the implementation of Memoranda of Understanding now in place between most state insurance departments and the Federal Reserve Board for sharing appropriate confidential, supervisory information and consumer complaints, as envisioned in the GLB Act, have fostered effective coordination of supervisory activities. These accomplishments represent significant milestones in the achievement of effective cooperation between banking and insurance regulators.

### **Frameworks for Supervising Banks and Insurance**

The primary objective of insurance regulation is to correct market failures that would otherwise cause insurers to incur an excessive risk of insolvency or engage in market abuses that hurt consumers. Significant state insurance department regulatory resources are employed to monitor market behaviors, compliance, and solvency. Each state, the District of Columbia, and the U.S. territories are responsible for regulating the insurance business within their own jurisdictions. Each state maintains its own insurance department, which operates under the supervision of a commissioner, director, or superintendent who is either appointed or elected. Some states have combined the regulation of insurance, banking, and securities, activities under one department or office.

### **NAIC Insurance Supervision**

The NAIC provides its members with a forum for discussing common interests and for working cooperatively on regulatory matters that transcend the boundaries of their own jurisdictions. The purpose of the NAIC is to facilitate communication and interaction among insurance regulators, to enhance insurance regulation, and establish national standards where appropriate.

### **NAIC Objective**

The objective of the NAIC is to serve the public interest by assisting state insurance supervisory officials, individually and collectively, in achieving the following fundamental insurance regulatory objectives:

- 1) Protect the public interest, promote competitive markets and facilitate the fair and equitable treatment of insurance consumers;
- 2) Promote the reliability, solvency and financial solidity of insurance institutions; and
- 3) Support and improve state regulation of insurance.

The primary means for NAIC members to be actively involved in the association is through the NAIC committee system. Each commissioner serves, or delegates to state insurance department staff, the responsibility to serve on various NAIC committees, task forces and working groups. The NAIC is committed to conducting its business openly, subject to the discretion of the chairpersons of committees, subcommittees, tasks forces, working groups and subgroups, who may determine those situations in which public discussions would not be appropriate.

### **Financial Regulation Standards**

Insurance companies are chartered by individual jurisdictions and receive a certificate of authority (that is, a license) to conduct business from each jurisdiction in which the company desires to

underwrite insurance. This has been the case since 1792, when chartered insurance companies were first required by the states to limit company activities and investments, and to file financial statements. The states issue a number of different insurance company license types, including life and health, and property and casualty licenses. The states also issue insurance producer license types, including broker, independent agents, managing general agents, and general agent licenses.

### **Reinsurer Regulation**

Reinsurers may either be authorized or licensed to write reinsurance business depending on the states laws and regulations. Under state insurance law, provided the owner meets certain criteria through the regulatory approval process, there are very few outright restrictions on a licensed insurer's ownership by, or affiliation with, other financial or non-financial companies. An exception is the general prohibition on foreign government ownership of an insurer. State insurance law does not provide for consolidated supervision of the insurance holding company or the parent holding company. However, an insurance company is subject to state restrictions and disclosures regarding inter-affiliate relationships, and change in ownership is subject to state insurance department approval. Under state law, a licensed insurance company is generally authorized to own subsidiaries that conduct insurance or insurance-related business activities, including real estate management and real estate development. Investments in higher risk activities are limited by state statutes and indirectly through statutory RBC minimum standards.

### **Banking Regulation Framework**

The FRS is the primary federal banking regulator for state member banks. It also has supervisory authority for all U.S. bank holding companies. In the U.S., commercial banks are either federally chartered by the Comptroller of the Currency (OCC) as national banks, or are chartered by a state. National banks are supervised by the OCC and are members of the FRS. State-chartered banks that are members of the FRS are referred to as state member banks, and are supervised by both the applicable state banking department(s) and the FRS. A state bank that does not choose to become a member of the FRS is referred to as a state nonmember bank and is supervised by both the applicable state banking department(s) and the FDIC. The OCC, FRS and FDIC are the primary federal bank supervisors for national banks, state member banks and state nonmember banks, respectively. A "dual banking system" exists in the U.S. whereby state-chartered banks have both a federal bank and a state bank regulator(s). A state-chartered bank may be subject to supervision in all states in which it operates. Therefore, the FRS actively coordinates its supervision of state member banks with the applicable state banking department(s).

### **Tools for Identifying Financially Weakened Companies**

The NAIC reporting requirements have evolved considerably since its annual statement introduction in 1879. All states require an insurer to use the NAIC annual and quarterly statement reporting forms to satisfy their statutory financial statement filing requirements, except that states may exempt an insurer from this requirement, as appropriate. The complete annual statement filing currently includes a balance sheet, income statement, statement of cash flow, notes to financial statements, general interrogatories, and a significant number of supporting details in various exhibits, schedules and supplemental filings. General interrogatories are limited-scope questions regarding an insurer and its financial position and operations.

## **Insurance and Financial Reporting**

Some of the more important exhibits and schedules provide information about: investment income and realized gains and losses; nonadmitted assets; Asset Valuation Reserve and Interest Maintenance Reserve; premiums and losses; expenses; long-term investments in bonds, preferred stock, common stock, real estate, mortgage loans, and other investments; derivatives; short-term investments; cash and cash equivalents; reinsurance; and transactions with affiliates. Supplemental filings are also required of most insurers, such as the actuarial opinion, the management's discussion and analysis, the annual audited financial report, and the RBC report. Other supplemental filings include specialty information such as the Medicare supplement report, the credit insurance report, and the long-term care report. Since December 31, 2003, insurers are also required to report affiliations with a BHC, bank, thrift or securities firm; to provide the names of each such affiliate; and to identify the relevant federal regulators of each insurer's financial institution affiliate. In addition to the annual statements, most insurers also are required to file the NAIC quarterly statement reporting form that contains key information on assets and liabilities; income and surplus; changes in investments; reinsurance; premiums written; losses and reserves.

Insurance company statutory financial reports are based on statutory accounting principles (SAP), which are designed to address the concerns of regulators. SAP stresses measurement of the ability to pay claims of insurers in the future, while generally accepted accounting principles (GAAP) stresses measurement of earnings of a business from period to period, and the matching of revenues and expenses for the measurement period (source: Preamble of the NAIC Accounting Practices and Procedures Manual). Conservatism serves as a major principle in SAP. For example, some assets are not allowed to be included in an insurer's surplus; these are referred to as nonadmitted assets. Another example of conservatism is the prohibition against discounting reserves, and the fact that specific tables approved by regulators are required to establish reserves for various life insurance products. Under GAAP, the experience expected by each insurance company, with provision for the risk of adverse deviation, is used to determine the reserves it will establish for its policies.

## **Solvency Screening and Financial Analysis Systems**

The fundamental objective of insurance company solvency monitoring is to ensure that companies meet regulatory standards and to alert regulators if actions need to be taken to protect policyholders. To accomplish this task, the state insurance regulators conduct financial analysis using regulatory financial reports, financial tools and other sources of information to detect problems that may jeopardize a company's long-term viability. These sources include SEC filings, corporate reports, external, independent certified public accountant (CPA) attestation reports, financial examination and market conduct reports, rate and policy form filings, consumer complaints, independent rating agency reports, correspondence from agents and insurers, and business media.

State insurance departments generally prioritize the review of their domiciliary companies based on a system of financial ratios and other screening tools, including those maintained by the NAIC. The NAIC has created a network of financial information systems and tools, such as the Financial Analysis Solvency Tools (FAST) System that includes the Insurance Regulatory Information System (IRIS), the Scoring System, and the Insurer Profiles System that are discussed below. The NAIC makes the information systems and tools available to state insurance regulators over the NAIC's Internet-State Interface Technology Enhancement (I-SITE). I-SITE provides a common user interface for more than 50 applications that are used to produce a wide variety of standard and custom reports. To be accredited, a state is required to conduct quarterly financial analysis on their domiciliary multi-state insurers. Most states conduct quarterly financial analysis on their single-state insurers as well. Typically, insurers with anomalous results, or those that have been previously identified for attention

















sound financial and operational condition. The court order could, among other matters, direct the rehabilitator to take possession of the assets and administer the assets and the operations of the insurance company under the supervision of the court or under a formal plan approved by the court with notice to the company's affected creditors.

**Liquidation** - In the event that rehabilitation of an insurer is unsuccessful, the insurance department may, through legal proceedings, place the insurer in liquidation. The liquidation process ordinarily would include the seizure and marshalling of the company's assets, a determination of the company's liabilities, and the distribution of the assets of the insurance company under the supervision of the court to address or redeem those liabilities.

**Dissolution** - An insurance department may petition a court for an order to dissolve or terminate the corporate existence of a domestic insurance company following its complete liquidation.

The nature, timing, and extent of regulatory action in any given troubled company situation depends, in part, on the applicable jurisdiction's laws and regulations to which the insurance company is subject, as well as the circumstances of the particular situation. State insurance law may use different terms to refer to essentially similar actions, and the actions that are available to an insurance department differ among the states. When an insurer is found to be insolvent and is ordered liquidated, the guaranty funds are the source of last resort to provide protection for the insurer's policyholders and claimants. Not all policy obligations, however, are covered. For those that are covered, statutory limits apply. Additionally, not all policyholders and claimants are covered.

## **Bank Supervisors**

In the event that a commercial bank is formally declared insolvent by its chartering agency (a state banking department or the OCC), the chartering agency and the applicable federal regulator - the FRS, OCC, or the FDIC, in its supervision capacity - generally no longer have any responsibility for supervising the bank. Federal statutes name the FDIC as receiver and outline the process of a bank receivership and liquidation as well as the prioritization of claims. The amount of FDIC insurance coverage of \$100,000 per depositor is uniform nationwide in the event of a bank insolvency. Deposits of larger amounts have priority over all other non-depositor creditors.

In the event that all of a BHC's insured depository institutions are placed into receivership, the company is no longer a BHC, and, therefore, is no longer supervised by the FRS. The FRS generally has no role in the liquidation of a BHC or a company that was formerly a BHC. Such liquidations are administered in accordance with federal bankruptcy laws.