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INSURING SOCIAL AND ECONOMIC RISKS

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A discussion of underwriting, pricing and societal considerations in insuring risks such as financial guarantees, product and professional liability, workers' compensation benefits, unemployment benefits, and others in a changing social and economic environment.

MR. ROSS C. COWAN: In the fields of property and casualty liability coverages, considerable importance is given to the underwriter's responsibilities to evaluate and classify risks. Fulfilling these responsibilities has become more difficult due to the changing conditions of the world environment. Unfortunately, there are far too few underwriters who are capable of assuming these responsibilities. In part, the insurance industry itself has contributed to the problem by placing too great a reliance on central statistical and rate-making organizations. Insurers must discover a way to get their underwriters more involved in the evaluation and classification functions.

In recent years, there have been many examples of how the failure to properly assess risks under changing social, economic and business conditions has resulted in large financial losses to insurers.

(1) In 1969, The New York Times ran a major article on the influx of hard drug addicts in New York City. In the article, it was estimated that the product of the number of addicts and the street price per fix was $1,000,000. Since drug addicts are incapable of holding jobs, they were compelled to steal property valued at $10,000,000 each day in order to collect the $1,000,000 in cash. It was no surprise when insurance claims on Homeowner and Commercial Multiperil policies began to skyrocket. However, underwriting managers failed to react to the warning. Consequently, underwriting losses resulted, and the insurance market dried up.

(2) In the late 1960's, bowling alleys were being constructed in great numbers. Accompanying this boom were expensive automatic pinsetters and big mortgages. However, after the public began to lose interest in the sport, the fires started, and underwriting losses were realized.

(3) In 1974, the economic downturn resulted in high unemployment. Although most causes of large fires are listed as unknown, many of the fires destroying commercial properties were attributed to the retaliatory efforts of the disgruntled, unemployed workers.

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(4) In 1976, the combination of deteriorating urban areas and easy availability of insurance through involuntary subscription pools resulted in an increased incidence of arson.

In addition to these examples, there are many developments that clearly suggest that too much reliance on the record of the more tranquil past will invite serious consequences. Underwriters must consider new court decisions, the broader insurance coverages made available, new legislation and the ramifications of the "new and improved" products which are introduced into markets. Consider the following examples.

(1) For thirty years, court cases had established that downhill skiing injuries were to be considered as an Assumption of Risk.[1] However, in 1977, a local judge in Vermont ruled that times had changed and that skiers could expect perfectly groomed slopes: a $1,500,000 judgment resulted. After this decision, insurers announced that they would withdraw coverage, and the Governor and the Legislature quickly passed a bill returning to the Assumption of Risk doctrine. Unfortunately, such things are easier to do in Vermont than in more complex societies around the country.

(2) Broad liability policies with high limits have been introduced. Underwriters should recognize that these often breed their own claims.

(3) In 1976, when the Swine Flu issue arose, there had been virtually no record of vaccine problems. Nonetheless, a great uproar followed, and Congress was pressed to legislate a defense against the Strict Liability doctrine.[2]

(4) In 1970, flannel pajamas were flammable, notwithstanding the fact that they met federal safety standards. In 1975, the federal standards were greatly strengthened. Unfortunately, charges that the flame retardant caused cancer followed. This example demonstrates that product improvements may cause new and more complex hazards.

(5) Some of the most expensive insurance claims in Ocean Marine insurance stem from innovative improvements introduced in recent years. Supertankers, one-fifth of a mile in length, are difficult to steer when all systems function properly. However, when steering fails, a calamity results.

Another new hull design is a mother-ship carrying barges. These are loaded and unloaded by onboard cranes. Unfortunately, some cranes have gone over the side along with the barges.

[1]The percentage of negligence assumed by a party in proceeding with an act which leads to an occurrence.

[2]The legal theory holding that a party does not have to prove negligence in order to obtain a judgment for an occurrence arising from product error.

The list is long. Railroad derailments are often the result of the insufficient maintenance which results from an unprofitable business. In contrast, grain elevator dust explosions reflect a growing lack of safety in the midst of big profits. While some may consider these examples as nothing more than extremes or isolated situations of an otherwise well-ordered world, it is more likely that underwriters will have to face these matters with greater frequency and increasing severity.

Has the insurance industry developed methods to help its underwriters to cope successfully? Most insurance companies assume they must offer every one of the standard policy coverages with most of the amending extensions available. They provide this spectrum for all but the most hazardous or specialized classes. They do this by accepting the classification system, rating system and policy forms published by the central statistical and rate making organization to which they subscribe. For years, there have been underwriters of many years of experience whose function it has been to review the inspectors' reports and the claim experience of particular agents. The actual rating and classification has fallen to a staff of "rating clerks" who merely state the premium and mail the policy to the agent without further review by the underwriter. Upon receipt, the agent has his "policy checking clerk" review "the manual" to be certain that all possible credits have been obtained before releasing the policy to the client. The underwriter who operates this way has been trained to accept this procedure. Neither he nor his manager sees any reason to question it. Surely this is not underwriting. Without underwriters who feel the responsibility for signing their name under the policy provisions, an insurer cannot expect to run a sound operation, understand the experience which emerges and adjust for new trends.

A way must be found to "force" underwriters to assess and classify risk hazards; to periodically review standard policy wording with an eye to its intent and possible ambiguities; to put his or her own hand to writing amendatory language; and lastly, to analyze the effects of the rates and rating plans and to adjust them to suit specific situations.

It is true that in recent years, the subscriber service organizations have proposed that insurers come to them for "suggested" rates only and that these rates be assessed by each insurer's underwriters for use in particular situations. This procedure is designed to encourage competition under new open rating laws, but there has been little change in practice. Few underwriters have been trained or encouraged to accept this challenge, and their pay scale historically reflects this. Now that insurers recognize the need for real underwriters, there are too few available.

In his 1970 best seller Future Shock, Alvin Toffler reflects on education and recommends a basic change in curriculum. While preserving proven techniques, he would establish some flexible sets of temporary data and procedures to evaluate and revise them. The purpose of this would be to develop the skills needed to analyze and use data. Toffler considers it important to distinguish between data and the skills needed to use the data. He further suggests that "contingency curricula" be created so that society can bank on a wider range of skills, including some that may never have to be used, which would enable society to cope with the unexpected.

This suggestion neatly corresponds with the need to organize a better method to assist underwriters. Such a method should emphasize individual approaches by each insurance company and would likely produce individual underwriting results. This objective is better than trying to match or beat "industry-wide" results in all classes.

Service organizations should be capable of collecting not only the traditional statistical data but also a variety of other material. They could provide library reference assistance on technical and physical information and legal trends. They could offer actuarial consulting services and bring scientific reasoning to the underwriter's intuitive approach.

In this way, the individual underwriters and insurance companies can develop certain expertise in given areas. Some areas will be traditional, some will be specialized and others will be experimental. The industry can even develop some of the "lead underwriter" practices which have worked so well in London. This would allow some insurers to recognize and "follow" a leader in certain coverages and pay to the lead-insurer a special "override" fee as compensation.

Perhaps this sounds like a difficult transformation. However, it would enable insurers in the United States to conduct business with greater confidence in long term expectations, and this would produce a market with continuity and reliability. All of this constitutes a worthwhile goal!

MR. ROBERT D. SHAPIRO: In recent years, a number of insurance operations have developed and provided financial guarantee insurance. Probably, the best known of these coverages is mortgage guarantee insurance wherein lenders are provided insurance guarantees on a portion of their mortgage loans. Other similar coverages include lease insurance and bond insurance.

This discussion will cover one approach to evaluating, pricing and managing the municipal bond insurance risk. Municipal bond guarantees assure investors that in the event of issuer default bondholders will receive scheduled coupon and principal payments promptly from the insurance company. The bond-issuer benefits from the insurance by obtaining improved bond quality, lower interest costs, and increased bond marketability. The bondholder achieves peace of mind provided by the guarantee.

Evaluating the Municipal Bond Insurance Risk

There are really two distinct aspects to evaluating the municipal bond insurance risk. First, the risk must be analyzed in order for the insurance company to determine its general product design and claims cost expectations. Then, once the risk is defined, each bond applicant must be evaluated from an underwriting perspective to determine whether or not it qualifies for the insurance.

In analyzing the municipal bond insurance risk, there is very little relevant historical statistical experience upon which one can rely. Hence, considable judgment must be applied in arriving at the final product structure and expected claim costs. In addition, there is the strong likelihood that future experience will be influenced significantly by the presence of the insurance coverage, and the actuary must estimate the extent to which the possession of bond insurance might induce the bond-issuer to file and/or maintain a claim.

A list of the important factors that influence the nature of the bond default risk would include:

1. the design of the coverage,
2. the form and extent of the underwriting,
3. the anticipated claims administration procedures,
4. the form of associated reinsurance arrangements,
5. the characteristics of the particular bond under consideration,
6. the anticipated recovery experience of defaulted bonds,
7. the influence of regulatory authorities,
8. the potential for spread of risk across market areas and time, and
9. the influence of competitors on the product design and price.

The bond insurance risk is not one that falls easily under the label of "insurance risk." On an expected value basis, if the coupon rates on each bond truly reflect their intrinsic risk, the insurance company would need to charge exactly the reduction in coupon rate on an insured bond just to expect to break even. For example, if a bond has a 9% coupon rate and 6% represents the time value of money, 3% (i.e., 9%-6%) can be considered the charge needed to properly compensate the bondholder for the risks he is taking. If the bond insurance permits the bond-issuer to lower his coupon rate from 9% to 8%, and 8% properly represents the new level of risk, the insurance company would theoretically have to charge 1% just to have the expectation of breaking even.

In addition, bonds, particularly municipal bonds, are strongly influenced by the economic, social, and political environment. Furthermore, adverse environment conditions tend to affect all bonds simultaneously; hence there is the real risk of catastrophe. For example, if the economy changes adversely, municipalities would have declining resources (since their taxpayers would have lower incomes per capita), and the probability of default increases rapidly!

How can bond insurance be provided to produce a reasonable expected profit? Basically, profits will be achieved through well-conceived product design, retention of the better risks through careful underwriting, and pricing on a conservative basis. Where there are government guarantee programs in existence, they often include social goals which draw the worse risks to them. There is clearly a challenge to the actuary in reflecting all of this in his risk evaluation and pricing activity!

Once the coverage is designed, the insurance company must control its risk through underwriting, claims administration, and reinsurance. It might be of interest to briefly note some of the principal pieces of underwriting data that an insurance company would analyze in evaluating a bond insurance risk. First, the company would carefully review the bond-issuer's past

financial history including information on past tax sources, collection experience, previous debt offerings and related default experience. Any statutory or other restrictions on taxing authority and debt offerings would be reviewed. The nature of the bond-issuer (its size, age, past business record, location, et cetera) would be analyzed with the goal of forecasting future anticipated growth and business quality of the bond-issuer's operation.

Pricing the Bond Insurance Risk

Pricing a bond guarantee coverage involves the dual challenge of (a) seeking to establish a pricing foundation that reflects all of the major variables that could significantly influence the future financial experience, and (b) dealing with very limited past statistical or pricing experience on this type of line.

In analyzing the components of expected bond insurance claims, one may decide to represent the expected claim mechanics by a model analogous to disability income. The occurrence of a bond default can be likened to the occurrence of a disability. Once the bond defaults, payments (interest and principal) are made to the "disabled" bond-issuer according to the benefit schedule but only as long as the bond-issuer remains disabled. The issuer can either remain disabled, with benefit payments continuing, or "recover" with the related termination of benefit payments.

One special aspect of bond insurance that is not similar to disability income is that there can be recovery of past benefit payments once the issuer recovers. Except for needing to reflect this factor, however, the expected claim cost each year can be conveniently thought of as the product of (a) a probability of default and (b) a defaulted-bond annuity (reflecting annual probabilities of remaining in default status, expected salvage, and the time value of money). A simplified formula for the expected claim cost in policy year t might look like this:

$$cc_t = f_t \times \sum_{i=t}^{n} (v^{i-t+1}) \times (P_i') \times (A_i) \times (1-R_i)$$

where: (a) cc_t is the expected claim cost for policy year t,

(b) f_t = the probability of default occurring in year t,

(c) v^t = the present value of $1 payable t years in the future under an assumed annual interest rate,

(d) A_t = principal and interest payments due at the end of year t,

(e) P_t' = the probability of the bond-issuer remaining in default as of the end of year t, and

(f) R_t = the reduction in the gross expected loss in year t due to projected recoveries. (percentage basis)

Although this formula can be structured in many different ways, its similarity to a disability income claim cost structure is clear. This type of analogy is quite helpful in working with a new or unusual insurance coverage because it provides a familiar foundation from which to develop the actuarial analysis. As comparisons are made between the new coverage and the familiar model, we can also expect to gain new insight into our familiar coverage.

In developing the assumptions as to the claim cost components (default rates, recovery rates and salvage proportions), the actuary must review a number of major risk-influencing factors for each major category of bond. The nature of the bond (i.e., its term, coupon rate, form of principal maturity, call features, et cetera) will influence future financial experience.

Once the claim costs are determined, the actuary is faced with his normal task of establishing assumptions with respect to persistency, interest rates, and expenses. There are special reserve requirements for financial guarantee programs that require discussion beyond the scope of this presentation. Similarly, the development of profit objectives consistent with the insurance risk being assumed requires substantial review and judgment.

Because of the long term risks being assumed (paid for either on a single or level premium basis), a "life" rather than a "casualty" pricing approach has been taken. Forecasts of probable results are an implicit part of this pricing work, and these projections provide the foundation for future financial management of the line.

Managing the Bond Insurance Risk

The pricing function is a part of the recursive process that also includes analyzing results, comparing them to expectations, and modifying plans as expectations change. Obviously in new forms of insurance, such as bond insurance, there is a greater likelihood of expectations changing as experience emerges. Hence, it is critical that experience analysis and projection information are available on a continuing basis to permit management to see trends and adjust quickly.

Some of the particular areas where management of these financial guarantee programs will encounter future challenges include the following.

1. Evaluating the reasonableness of the contingency fund requirements that are currently mandated. Is 50% of earned premium appropriate for the bond insurance risk? What is the relationship of the contingency fund to the price and surplus requirements?

2. Establishing reasonable profit standards for this type of insurance business.

3. Developing reinsurance arrangements that will expand capacity and create a better risk spread.

4. Dealing with changing economic, political, and social conditions both in terms of their impact on government programs and their impact on product marketability.

A Municipal Bond Insurance Example

The following is an example of a $5,000,000 new municipal bond issue, involving a 25 year term, a fully deferred principal maturity, and a 7% coupon rate. The amortization schedule would look like this:

	Amortization Payment		
Year	Principal	Interest	Total
1	$ 0	$ 350,000	$ 350,000
2	0	350,000	350,000
3	0	350,000	350,000
.	.	.	.
.	.	.	.
.	.	.	.
10	0	350,000	350,000
.	.	.	.
.	.	.	.
.	.	.	.
24	0	350,000	350,000
25	5,000,000	350,000	5,350,000
Totals	$5,000,000	$8,750,000	$13,750,000

Assume for illustrative purposes that the municipal bond insurance company expects a .04% per year default rate with 70% of the amount at risk being salvaged (on the average). Further assume, that the company charges a single premium of .650% of the total principal and interest payments due under the bond. This results in a premium payable of $89,375 (i.e., .00650 x $13,750,000). The $89,375 would be equivalent to about $7,670 per year if amortized over 25 years, assuming money to be worth 7%. This increases the issuer's interest cost about .15% per year. If the presence of the insurance and the related improved bond quality creates interest cost savings of greater than 15 basis points, it is probably worth the investment.

What is the exposure of the insurance company? If the bond should default immediately after issue and never resume payments, the insurance company would be liable for $13,750,000 of future payments (undiscounted). If money is assumed to be worth 7%, and if it is further assumed that only 30% of each potential claim is ultimately paid out, one arrives at an "adjusted" liability of $1,500,000. Since the expected default rate in year 1 is .04%, the expected claim cost in the first year would be derived to be $600 (i.e., $1,500,000 x .0004).

MR. ARHTUR W. ERICSON: Compensation systems designed to meet broad social needs are becoming alarmingly more noticeable to the general public. Demands for liberalizations in benefits and eligibility requirements, the appearances of administrative inconsistencies, evidences of widespread abuse and mounting financial difficulties are common. The federal/state

administered unemployment insurance system is one example of a system which is breaking down. While it does not receive as much publicity as the health insurance and Social Security systems, the reasons for the difficulties seem to be similar. When contemplating changes to the unemployment system, social, economic and political issues must be considered, and in doing so, one should easily recognize that simple solutions are not readily available.

Although the Unemployment Insurance System was originally designed to meet sound actuarial and underwriting principles, the patchwork legislation and convenient administrative changes of the past two decades demonstrate a failure to recognize and appraise the underwriting implications of a changing social and economic environment. More importantly, however, the unemployment insurance system has become another of the many governmental support programs which have proven extremely detrimental to the way of life upon which this country was founded two hundred years ago. The system is counter productive to a way of life embracing hard work, thrift and self-reliance. In considering the underwriting principles which should be important ingredients for a successful program of unemployment insurance, one should include eligibility requirements, duration of benefits, benefit provisions and benefit amounts.

Eligibility

Not just anyone who is unemployed should be eligible to receive benefits. In order to qualify for unemployment benefits, one should demonstrate an attachment to the labor market and a willingness to continue work if a suitable job were available. Attachment to the labor market can be demonstrated by having worked for a specified period of time in the recent past; such a requirement would screen those who are entering and reentering the labor market and consequently have not really suffered a recent loss of wages. Currently, three-fourths of the existing plans use earnings as a qualifying requirement; the remainder use a minimum number of weeks of employment. All states should return to the weeks-of-work form of requirement for determining insured status. There may be a question among experts concerning the number of weeks of work that should be required; nonetheless, the principle is sound. The weeks-of-work requirement provides a direct measure of employment, avoids unequal treatment of workers and focuses on recent employment.

In New Jersey, a period of 20 weeks of work is the requirement and represents the maximum number among plans with a weeks-of-work requirement. Also in New Jersey, an earnings requirement is used as an alternative method of qualifying for benefits. Instead of the 20 weeks-of-work requirement, one may qualify for benefits by having earned $2,200 during the year prior to unemployment. Hence, higher income workers are able to qualify for benefits after working only a minimum number of weeks. Thus in 1978, someone working 35 hours per week at $12 per hour, could work as few as 5 1/4 weeks and qualify for benefits.

In addition to having demonstrated a previous attachment to the labor market, a person must be ready and willing to accept suitable work for which he is qualified when that work is offered to him. Failure to accept this work disqualifies him from receiving unemployment benefits. This principle implies that someone who intends to return to "household" duties or to school should

not be entitled to benefits. In these cases, the intention is to remove oneself from the labor market. Therefore, such persons are not really available for work and should not be entitled to unemployment benefits. More precise administrative provisions must be devised to exclude from benefits those who are no longer a part of the labor market.

It should be noted that the "suitable work" provision of this principle has become a very controversial subject. Some will argue that the provision exposes the System to widespread abuse. It seems such a provision should be modified to re-establish self-respect among workers and eliminate the dole system and the evils of idleness associated with such practices. The overriding principle should be that as long as claimants are not spending their time looking for employment they should not receive benefits without performing some work for society. Stories of situations, where claimants are receiving benefits while attending to household duties, going to school without any intention of returning to work in the immediate future or receiving benefits without looking for work are too numerous to be ignored in underwriting an unemployment insurance program.

Those who deal in unemployment statistics state that fraudulent cases of these types occur infrequently. For example, they hasten to point out that in New Jersey during 1976 improperly received benefits of 3 1/2 billion dollars plus over-payments of 5 3/4 million dollars amounted to less than 1% of total unemployment benefits. However, measuring the extent of abuse is itself an impossible task. Furthermore, one must place considerable weight on the stories of abuse and on the many opportunities which exist for claimants to select against the program. Also, as a counter statistic and a fact of considerable importance, one can point to the results from a Gallup Poll. Over the last 25 years, Gallup Poll surveys have continually indicated that the public believes that people in general do not possess honesty to the extent that they did previously. In 1952, 46% of those surveyed felt that people were not as honest and moral as they used to be. The most recent survey indicated 66% felt this way, i.e., two out of every three people now believe that honesty and morality in the country has deteriorated. The "something-for-nothing" attitude and the "I-am-entitled-to-it" syndrome are prevalent in society. Opportunities in the Unemployment Insurance System to "get away with" claims of the type mentioned earlier contribute to national problems. An even greater contributory effect is the feeling by the public that by not correcting eligibility requirements and other faulty provisions in the law, government condones such actions.

Duration of Benefits

The unfortunate effect of the alternative eligibility provision in New Jersey has been negatively enhanced by another legislative modification. Instead of paying benefits for a period equal to 3/4 of the number of weeks worked, up to a maximum of 26 weeks, the total dollars to be paid out during unemployment would be equal to 1/3 of the $2,200 earnings. Hence, for someone eligible to receive $110 per week (the maximum payment under New Jersey's plan), this alternative provision will provide 6 2/3 weeks of benefits (1/3 x $2,200 ÷ $110) instead of 4 weeks of benefits (3/4 x 5 1/4 weeks) called for under the regular provision. This is not the typical earnings requirement in other states, but it does illustrate one of the disadvantages of this type of qualification requirement -- discrimination

against lower wage earners. Such alternative provisions make for interesting combinations of periods of employment and the receipt of unemployment benefits. For example, when workers within certain occupational groups are employed on a job basis instead of working regularly for one employer, and when insufficient work is available for the number of workers registered in those occupations, use of the alternative provisions can maximize the receipt of unemployment benefits. This can be accomplished by shuttling between periods of work and unemployment similar to the movement of offensive, defensive and other special unit teams in football. While some groups of workers are receiving unemployment benefits, other groups work in order to qualify for benefits. Interestingly, working for 5 1/4 weeks at $420 per week and receiving unemployment benefits for 6 2/3 weeks at $110 per week averages out to $246 per week. This is 12% higher than the average weekly wage for all workers in New Jersey!

As a result of the opportunity to play this game, the Unemployment Insurance System has become a wage maintenance program for many groups of workers. Actually, the system is doing exactly what it is capable of doing and exactly what it has been modified to do. Unfortunately for an increasing number of workers, the opportunity for self-reliance is gradually being taken away from them.

The underwriting principle which has been disregarded in this instance is that the length of time during which a person receives unemployment benefits should be temporary and should be related to his most recent amount of time in a labor market to which he has demonstrated a permanent attachment. Eligibility requirements and benefits should encourage people to return to work as quickly as possible and should discourage them from working for short periods of time followed by the receipt of unemployment benefits for even longer periods of time.

Benefit Provisions

Modifications to the unemployment insurance system should be more responsive to the social and economic changes which have taken place nationally during the past three decades. For example, during this period, nearly the entire growth in employment has occurred in the consumer and producer services sector, while the goods-producing sector of the economy has dropped from accounting for 1/2 of total employment to only 1/3. During the last two decades, noticeable growth in population and substantial growth in employment (particularly in the services sector) have occurred in the Southern and Western regions of the country. The Northeastern and North Central regions have experienced less than 1/2 of this growth. In fact, the Northeastern region, particularly the states of New York, New Jersey and Pennsylvania, have experienced nearly a 15% decrease in manufacturing employment. In view of these changes, higher unemployment benefits and liberalizations in eligibility requirements have been legislated over the years for plans in the Northeast region. Based on emerging unemployment statistics, these actions have retained a large number of unemployed workers from the deteriorating industries in these geographical areas.

One should recognize and accept the fact that these changes are not likely to be reversed and probably have become a permanent part of the economy. Therefore, a large number of the workers who have long and repeated periods of unemployment and who must be considered unlikely candidates to be rehired

in their former occupations while located in the Northeast, should be retrained in other occupations. Furthermore, moving allowances should be given to relocate some of these workers to the "right" regions of the country. Perhaps a large portion of the tax dollars now being redistributed from the Northeast to other regions of the country should be used for such moving allowances and retraining costs.

Despite the worsening economic conditions, however, a steady influx of unskilled workers into the Northeast region has added to the states' financial difficulties. Although the substantially higher welfare benefits in these states must be considered as a motivating factor for this migration of poorer southern families, the Unemployment Insurance System could have helped its own cause by increasing the work qualification requirement for workers relocating in these states. If, for example, an additional 6 weeks of work during both of the 4 calendar-quarter periods prior to the quarter preceding a period of unemployment were added to the present 20 weeks requirement, many people might have been discouraged from moving from the Sunbelt regions. In fact, this type of discouragement for relocation to regions experiencing economic difficulties could become an automatic provision of the Unemployment Insurance System. When a state's unemployment rate exceeds a given level, the additional requirement could automatically go into effect for a temporary period. Such a provision could be limited to a particular industry or occupational group which is experiencing high unemployment.

Benefit Amounts

A very important underwriting principle for unemployment insurance is that benefits should be reasonably related to a person's income in such a manner that the worker has a sufficient incentive to return to work as soon as possible. Most state laws assume that a benefit equal to 50% of wages, up to some maximum amount which is dependent upon or related to a percentage of the average wage in the state, is adequate encouragement. In New Jersey, however, the benefit equals 2/3 of an individual's wages up to a maximum of 1/2 the state average weekly wage. Unfortunately, an increasing number of states are exceeding the principle of a 50% benefit either through a higher percent of an individual's weekly wage or the addition of weekly allowances for dependent children. For example, the rules in New Jersey permit those who have earned up to $165 per week to receive 2/3 of their gross wages. It doesn't take much financial awareness to realize that after subtracting federal and state income taxes, Social Security and unemployment insurance taxes, and other employment related expenses from $165 per week, a 2/3 unemployment insurance benefit equal to $110 per week becomes a very attractive alternative to work. Some experts contend that the loss of other employee benefits such as life and health insurance which are provided by the employer, greatly minimizes the disincentive to work for the primary wage earner. Nevertheless, with the increase of women in the labor force, those considered secondary wage earners would not be as concerned about the loss of such employee benefits since they would have already been covered under the primary wage earner's coverage. Hence, under the New Jersey system, where husband and wife both work, each earns $165 per week and both qualify for 26 weeks of unemployment benefits, it is possible during a 52 week period for one to work 52 weeks, the other to work 26 weeks and collect unemployment benefits for the remaining 26 weeks without more than $10 per week decrease in take-home pay. After discounting for other related employment expenses, it is entirely possible that the

couple could realize more money when one takes a 26 week "vacation." With more than 60% of the women in the 20-24 age group and more than 50% in the 25-54 age group now in the labor force, a benefit providing such opportunities can add substantially to the state's unemployment insurance financial difficulties.

The aforementioned underwriting principles have been overlooked in making the legislative and administrative changes in the Unemployment Insurance System over the past 20-30 years. In view of the many social and economic changes which also have taken place in the 40 years since the inception of the Unemployment Insurance System, there is a need to shift attention and methods away from piecemeal revisons which address short-run problems and react to the demands of pressure groups. There is a need to apply risk evaluation techniques to the system and return to sound actuarial and underwriting principles.

MR. DAVID W. PRAY: The purpose of providing medical expense and income replacement coverage is to alleviate economic loss due to certain hazards that beset broad categories of society. The market for these coverages includes nearly everyone. The following list includes the many forms in which these benefits come.

1. Group medical insurance for nonoccupational illness.
2. Workers' compensation for occupational accident and sickness.
3. Automobile insurance medical payments.
4. Salary continuance provided by employer.
5. Short-term cash accident and sickness provided by some states.
6. Group long-term disability.
7. Social Security.
8. Other people's automobile and homeowners' insurance.
9. Personal medical umbrella policy.
10. Group dismemberment coverage.
11. Group travel accident.
12. Private disability insurance.
13. Disability Benefits Law (New York State residents only).
14. Unemployment insurance.
15. Disability annuities and early retirement benefits under group pension plans.

Considering this lengthy list of benefits, it is no surprise that many people are richly insured! However, for the providers of such coverages, significant problems exist. The providers are well-aware of these problems, and some have offered solutions. In the insurance industry, the previous generation has confronted these problems, and it is probable that the next generation will do the same. Here is a partial list of the problems.

1. Overlapping benefits. (While there has been much discussion concerning the overlap between social insurance and private insurance, discussion concerning the overlap involving different forms of private insurance is also warranted.)

2. Over-insurance.

3. Inflating medical costs.

4. Raiding, i.e., the use of one insurance plan to pay benefits that should be collected from another plan instead.

5. Expansion of the concept of sickness.

6. Federal and state encroachment.

7. Expansion of regulatory scope and authority.

8. Lawsuits from claimants.

To gain a perspective of these problems, consider one coverage that is representative of the entire group; i.e., Workers' Compensation. Worker's Compensation provides short-term and long-term cash benefits, medical payments, dismemberment and death benefits, survivor benefits and pension benefits for occupational accident and sickness. In its origination, government intervention was necessary to create the right climate for this benefit; legal barriers and vested interests had to be overcome. Over the years, government has continued its role by legislating benefits, establishing industrial commissions to adjudicate claims, and providing part or all of the coverage in some jurisdictions. Rumors of a federal takeover have persisted for at least a quarter of a century, but the private sector still maintains a good portion of the marketplace. The insurance industry has participated in creative solutions to the problems of safety in the work place. Safety engineering, rehabiliatation, and industrial nursing were created by insurers and later taken over by industry and government. Incentive rating plans were devised to reduce premiums for employers who could improve their safety records. With the exception of some recent years, Workers' Compensation has enjoyed a good reputation as a profit maker. However, Workers' Compensation exhibits the symptoms of every ill that besets the other coverages providing medical care and income replacement. Here is a short list of problems that confront Workers' Compensation.

1. Compensation was once concerned with industrial accidents. Over the years, more and more industrial sicknesses were added to the list of compensable causes. It has never been easy for insurers to work with sickness as an insurable contingency, and it has been even more difficult to select the cases where sickness has been caused by one's occupation. Also, it has been difficult

to identify any residual effects of a disabling sickness. (Insurer's of group and individual income policies wrestle with similar problems.)

2. Cumulative trauma (i.e., the accumulation of disabilities over a long period of time and for which compensation is paid) when coupled with lifetime benefits has resulted in the problem of compensation being used as a supplement to pension benefits especially in industries where pension benefits are low.

3. Cost-of-living increases (sometimes retroactive) in existing benefits without rate relief have occurred. Medical payments are usually full cost and can last for a lifetime.

4. Lawsuits arising over disputed claims are not rare, and compensation carriers provide liability coverage for such incidents. Also, million dollar settlements are not uncommon.

This review of Workers' Compensation provides useful information that can be applied to other forms of medical expense and income replacement coverages. This is evident when one considers the problems which trouble the various forms of coverages in general.

1. Overlapping benefits, Over-insurance and Raiding

   a. These problems magnify when any one benefit is increased such that the income-replacement ratios are increased.

   b. Workers' Compensation overlaps with short-term and long-term disability benefits when it is difficult to determine whether the disability has arisen out of one's occupation. Occupational sickness has caused this distinction to be blurred with increasing frequency.

   c. Both Workers' Compensation and long-term and short-term disability benefits serve as unemployment insurance and retirement benefits.

   Two lessons should be learned from this analysis. First, the occupational/nonoccupational distinction is becoming less functional. Providing 24-hour coverage and splitting the benefits into medical payments and income would be a worthwhile change. Second, desirable income replacement ratios should be standardized for use in disability, unemployment and retirement.

2. Federal and state encroachment and Expansion of regulatory scope and authority

   a. Analysis of Workers' Compensation reveals that governments can be valuable in creating legislation to overcome legal restrictions and vested interests. It is further revealed that state regulation and authority is preferred in contrast to that at the federal level. While state regulation is varied and messy, it is not nomolithic, and although problems appear, they affect small areas of the country and are easier to handle on a local level.

b. Federal regulation and legislation are valuable in setting standards and encouraging states to maintain reasonable benefit levels.

3. Expansion of concept of sickness

The problem of how to insure sickness is the most difficult to handle. The woes besetting Workers' Compensation and other forms of coverage are most intractable in this area.

a. Trying to relate sickness to occupation is probably futile. One operational definition is: if one is too sick to work, then one is sick enough to collect benefits. However, this definition does not work well enough.

b. Workers' Compensation has been designed to include incentives to improve the safety of work areas and hence result in fewer accidents. First, the responsibility for safety in the work place is placed on the employer because it is the employer and not the employee who can control the hazards. Because of this, the employer bears the entire cost of Workers' Compensation. Furthermore, the costs are allocated in a manner such that an employer's cost is greater if his work place is unsafe relative to that of other employers. This provides the necessary incentive to cut the costs of the Program through safer working conditions. This principle can be used in other forms of medical expense and income replacement coverages. However, first it must be realized that, unlike occupational accidents, employees are largely responsible for their own health. Consequently, in order to introduce the necessary financial incentives, a cost must be extracted from the employee whenever he uses medical care. Until it is realized that employee-pay-nothing coverage is bad, there can be no effective cost control.