



TRADING RISKS

in the 21st Century

Forces are at work that may require insurance companies and their clients to deal with risk as a standardized and tradable commodity. The trading of risks will help to expand the offerings of insurance companies and make their products more affordable.

By David Ingram and Daniel Theodore

IT'S 1980. RONALD REAGAN IS ELECTED PRESIDENT.

Long-term treasuries are over 12 percent, and the top marginal tax rate is 70 percent. The inside buildup tax advantage of life insurance is worth over 4 percent per year for a 10-year holding period for someone in the top tax bracket.

With the Reagan tax cuts in 1981 and 1986, the top marginal tax rate is reduced to 28 percent. Long-term treasuries drop to under 10 percent, and by 1988 the tax advantage of the inside buildup is worth only 0.85 percent per year, or 21 percent of what it was in 1980.

In 2000, as Clinton leaves office, long-term treasuries yield under 6.5 percent and the top marginal tax rate has crept back up to 39.6 percent, which makes the inside buildup worth 65 basis points (bps). If interest rates stay at their current level of under 5 percent for long-term treasuries, the recent tax rate changes drive the value of the inside buildup to under 0.35 percent.

Reduction of the capital gains tax and near elimination of the estate tax have also reduced or eliminated other tax advantages of life insurance company products.

During the 1980s and 1990s many life insurance companies shifted their product concentration to savings related products that took maximum advantage of the tax preference. Going forward, it seems as if there are three possible general product strategies open for insurance companies: **1** pray for taxes and interest rates to swing back up again; **2** compete head-to-head with mutual funds and banks for savings dollars without a significant tax advantage; or **3** rediscover insurance.

The companies that take the insurance financial services and extend it to

Those who consider the insurance path will want to think about what the insurance marketplace might look like in that scenario. One future includes more variations on term insurance (pure risk) and whole life (bundled risk and savings) and universal life (unbundled risk and savings). Some combinations of savings and investment that haven't been tried yet and old combinations are likely to come back for second or third lives.

But the companies that take the insurance franchise out of competition with the other financial services and extend it to new areas will be the real winners in the future. That kind of extension has been slowed in the past 25 or more years by the cost advantage of the tax shelter for life insurance. Insurance company products that didn't fit into the definition of life insurance and provided that tax advantage would cost so much more than the tax-advantaged products that it was difficult to convince anyone they made sense economically. With the diminishment of the tax advantage, pricing for tax-advantaged life insurance coverages won't be that much better than pricing for new non-advantaged insurance products.

Current life insurance company products focus on several key risks: premature death, retirement income needs, nursing home costs, and medical costs. But individuals also face many other risks. One recent book, *The New Financial Order: Risk in the 21st Century* by Robert Shiller, explores a number of different ideas regarding risks that could be managed but aren't currently. He lists six ideas for his "new financial order":

- Insurance on livelihoods and home equity
- Macro markets
- Income-linked loans
- Inequity insurance
- Intergenerational Social Security
- International risk management agreements

While Shiller doesn't describe these ideas in terms of insurance company products, the first three ideas could be modified to terms that would fit our industry. Let's take them one at a time.

Insurance on Livelihoods

This insurance would pay a benefit based on the difference between the earning power of a profession at the inception of the policy and the earning power of that profession at some time in the future. The earning power would be based on comparison among income indexes for various professions. The livelihood insurance benefits could work like disability income coverage where the insureds would receive a monthly check if the income index of their profession drops below a certain attachment point. The size of the monthly check would depend on the degree to which their income fell from the level at the time they bought

the coverage.

Since relative income can't go down for all professions at once, it should be possible for the insurance company to treat this as a non-systematic risk that can be managed by diversification. If the insurance company sells these policies to people in the professions whose relative income goes up, then they'll also want to sell enough of the policies to people in professions whose relative income goes down.

Shiller writes as if these policies would be structured in the manner of financial futures contracts, where the cost of the policy at inception would be very little, but the winners would pay the losers. An insurance company would probably want to structure the contracts more like puts, where a policyholder could cash in the contract based on the change in relative earnings at any time after paying a level premium up to that point.

Managing the balance of underwriting would be a significant task for this coverage. The company might want to adjust prices for the coverage based on the demand by profession. Higher prices would be in order for higher demand coverages and lower prices for professions where demand is lower.

These price variations may be an indication of market perception of future prospects for a profession, but more likely, they would be a reflection about perceived uncertainty. If over time premiums for coverage for dentists rose while those for veterinarians fell, that information could influence student choices of careers and eventually affect the supply side of those professions.

This still may not work to achieve the needed diversification. Some kind of liquid market for these risk coverages would probably be required.

Insurance on Home Equity

Some feel the home equity market hasn't yet felt the pinch of the recent recession and increasing unemployment because of declining interest rates. If interest rates rise, the prediction is that housing prices in some of the locales where they've been skyrocketing will drop sharply.

Shiller sees these types of situations as another of the random drivers of wealth inequity that could and should be eliminated. He has already been active in developing markets for housing price index insurance. (Insuring individual house value is seen as having too high a potential "moral hazard," since it would be a disincentive for proper home maintenance.)

The housing price index insurance would make payments based on an index of home prices in a particular ZIP code. The same items about diversification of coverage would apply here, as with the professional income insurance.

A corporation could provide a benefit to transferred em-

franchise out of competition with the other new areas will be **the real winners** in the future.

ployees in the form of an insurance policy that paid off if the houses in the ZIP code appreciated less than houses in other similar (and predetermined) areas. If the houses in the employee's ZIP code went up 20 percent on the average while the similar area's houses went up 25 percent in the same period, the policy would pay 5 percent of the initial value of the house at the time the employee sold the house.

Macro Markets

Shiller's suggestion is for the formation of markets to trade in securities based on relative changes in gross domestic product (GDP) among countries. This type of security would provide for some equalization of economic consequences around the globe, in contrast to the existing system where people unfortunate enough to be born in the wrong part of the world are doomed to inescapable poverty.

The scope of this idea is probably beyond the life insurance industry, even if you agree the idea has merit. But there's a simple variation on the concept that would be a reasonable coverage for insurance companies to offer.

Like home equity insurance, a GDP insurance product could be linked to ZIP codes within a country. Small businesses with a high geographic concentration would be able to use this insurance to give them some protection against picking the wrong part of the country to concentrate their business. Large businesses could use this insurance to hedge their expansion into new areas. Again, insurers would have to make sure they had adequate diversification. It's easy to envision a liquid market in local GDP securities once this type of product was established. Like housing-price insurance, GDP insurance would involve building groups of similar areas. Businesses could buy units of coverage where lump-sum or periodic benefit payments could be triggered by significant differentials in the economic activity index between the insured area and other similar areas, or by differentials in growth rates.

Income-Linked Loans

Shiller provides some rather counter-indicative examples of this type of product. The idea, attributed to Milton Friedman in 1962, ties loan repayment to income. Shiller's examples of what's gone wrong with college loan programs based on this idea seem to suggest that there may still be some problems to be worked out in structuring these loans. Existing securities that are loans with an equity option show that there are ways to structure these for businesses, but it might be difficult to translate these to the individual level. Shiller was thinking of these in part as almost an advance workout provision for Third World debt that seems to go under at least once a decade.

Inequity Insurance

While called insurance, this idea is really a method for continuously adjusting the income tax brackets and rates. This is another idea that doesn't readily translate to private insurance.

Intergenerational Social Security

Under this idea, Social Security would change from a fixed benefit pay-as-you-go system to a fixed revenue pay-as-you-go system. He reframes this by saying that retirees would share the risks of the economy with working people. Tax rates would be fixed, and benefits would be a distribution of revenues and would vary as the number of retirees and the amount of revenue subject to tax varies. Retirees who don't want to take these risks could use Shiller's GDP-type swaps to trade away some of that risk and get a more dependable stream of income. This idea is really a reframing of the Social Security funding problem. In the end, it's likely that benefits and revenues will be brought in line, and this may be a helpful way of thinking through that process.

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International Risk Management Agreements

Shiller proposes that an international agency such as the World Bank be charged with overseeing the international aspects of these new risk transfer programs, policing markets and encouraging appropriate transactions to manage the financial risks of nations and peoples. For this to work for insurance companies, there needs to be an organization within countries to facilitate the trading of risk-based securities and enhance the risk management capabilities of companies. This would allow them to enter into these new products without taking on undue risks and providing a market price for risks.

Today, stock market analysts and investors pore over moun-

were a market, like the international one Shiller describes, that served as a place to transact trades of insurance company risks. Perhaps the insurance industry should consider the development of a market for financial instruments that suit its needs, instead of waiting for the existing markets to develop them.

Despite the strong reaction against the Pentagon's market for terrorism futures this past July, the insurance industry would gain valuable market information on the size of the risks from such a market. The trade-off would have to be in the area of standardization.

Currently, companies customize their coverages to accomplish market differentiation. An adverse side effect is that companies cannot readily get the market information on customized



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tains of details regarding their operations and prospects for individual businesses, some of which are quite small in relation to the overall economy. Efficient markets for the new risk coverages would require a similar situation for each. Analysts and traders would become experts on the prospects of professions, the local real-estate markets, and local economies. The scrutiny of detailed information will lead people to make trades based on their informed opinion about these new financial instruments. The net results of these trades will become the market price for these risks.

Creating New Instruments

Insurance companies have struggled in their risk management of existing products because of the lack of liquid markets for their risks. For many risks, insurance companies have the choice of reinsurance or retention of risks. That system hasn't always produced happy results. Take, for instance, the situation in the past several years regarding variable annuity guaranteed minimum death benefits (GMDB). Companies wrote and generally reinsured these benefits. Reinsurers took these coverages and found that as the market turned down they (a) should have hedged the benefits and (b) they couldn't afford to hedge them at the premium levels they were charging. Reinsurance has disappeared for new policies and writing companies are scrambling to develop their own hedging programs.

The financial markets are only somewhat helpful in this process. Insurance companies would be well served if there

coverages they could get on standardized coverages that could then be more readily traded in a market. Repeatedly, however, companies lead the market with new coverages that in the end are found to be underpriced for the level of risk. Market-price feedback on risks could shorten that cycle.

Individuals would probably also benefit from a liquid market for their insurance contracts. Consider recent history:

Viaticals: In the early 1980s, the spread of AIDS created something new: a secondary market for life insurance policies. A significant number of people afflicted with AIDS had insurmountable current medical expenses and very short life expectancies. Investor groups formed to purchase the life insurance policies of these people for more than their current cash values but a fraction of their face amount, providing the insureds with money to spend while they were still alive and the investors with astronomical returns on their investment after the insureds died.

Initially, these viatical arrangements reflected an immature market, exploiting the AIDS victims by providing minimal benefits while reaping excessive rewards to the investors. But gradually, developing legislation and regulation, and the maturing viatical market, resulted in a greater balance of the benefits between insureds and investors.

Insurers were naturally wary of this secondary market for their policies. When unrelated third parties own life insurance policies, what happens to insurable interest? Will investors get impatient if insureds live too long? What impact would these

outside influences have on the predictability of persistency, especially in the case of lapse-supported products?

The insurance companies responded with “accelerated death benefit riders” that allowed the policyholder to borrow up to 50 percent of the death benefit if the insured has been diagnosed with a terminal disease and is expected not to survive two years. Under these riders, there will still be significant death proceeds remaining to be paid to the beneficiaries at death. The accelerated death benefit thus provides current benefits to the insured while alive and to his heirs after his death. But without the pressure of the viatical industry, this rider may never have been offered.

Senior settlements: In the wake of better treatments, AIDS mortality was significantly reduced. The newly developed viatical market had to compete for fewer insureds with terminal diseases. At the same time, the demand for “uncorrelated” investments (i.e., those whose performance isn’t related to the equity market) has grown significantly.

To expand, the viatical companies have moved into the “senior settlement” market, seeking to purchase in-force policies from older insureds who may or may not have any significant health impairments. Insurance agents identify policies for which the original need is no longer present (e.g., empty nesters, retirees whose death would no longer cause a loss of income, or widows and divorcees with no dependents).

To rid themselves of the ongoing premium expense, these insureds could surrender their policies for the cash value, but they’d receive more if they sell them in the secondary market. These additional proceeds come with two strings, however. The insureds must share their medical records with the purchasers to evaluate their policies. And the involvement of third parties with no insurable interest, but who do have an economic interest in the insureds’ deaths, continues to create an ethical concern.

Immediate annuities: As the baby boomers reach retirement age, there’s a growing interest in immediate annuities. They’re interested, but they’re not buying.

The biggest drawback to these products is their perceived lack of liquidity. The annuities are purchased with single lump-sum payments, and they provide a monthly income. Once the annuities are issued, annuitants may not alter the terms of the contracts, even if their personal situation changes significantly.

Generally, the only available option is to “commute” the period certain and receive a lump sum equal to the present value of the guaranteed payments. Current monthly payments then stop (or are reduced if not fully commuted). If the annuitant is still alive at the end of the period certain, then monthly payments resume at their original level. There’s no way to get at the value of the life annuity benefit.

The growth of variable deferred annuities over the past two decades has led to development of variable payout annuities. The monthly payments from the variable payout annuities will vary with the performance of the underlying separate accounts. Furthermore, the contract holders may reallocate the separate

account units among various investment options to achieve different investment goals.

Pension scam: On July 11, the *CBS Evening News with Dan Rather* reported on a financial deception aimed at military veterans. Some third-party entrepreneurs have advertised in *The Navy Times*, offering immediate cash for temporary assignment of their monthly pension benefits.

In effect, these transactions are really collateralized loans. The CBS report focused on a retired Navy man who had received \$15,000 in return for three years of his \$900 monthly pension. If we ignore the mortality risk to the lender, we can determine that the veteran will pay 78.44 percent effective annual loan interest (in spite of the existence of veterans’ support groups that offer no-interest loans). This exploitation of America’s veterans is abhorrent, but provides a window to the future for the life insurance market.

Greater Liquidity

What do these stories have in common? When they can be traded in the open market, the line blurs between insurance contracts and other asset types.

Historically, insurance and annuity products have traded on their security and long-term guarantees. For many years, fi-



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financial planning meant implementing a plan to live by and to stick with through one's working years and into retirement.

Now, investment planning emphasizes flexibility to take advantage of investment opportunities, to meet unexpected needs, and to rebalance between current income and long-term estate planning—especially as the statutory environment evolves. Life insurance and annuities have long-term commitments with limited options that have seriously handicapped their appeal in today's market.

The secondary markets for life insurance policies (viaticals and life settlements) arose because there was an opportunity *and* a need. New annuity designs are being developed to provide greater liquidity because there is a need for greater liquidity. These products are in their infancy, but point the way toward greater flexibility in the future. Even scams under which veterans assign their government pensions occur because of the need to trade future income for current cash.

The insurance industry tends to fight these developments. How can actuaries predict persistency (and resulting mortality) when third parties are interfering with the historical trends? How can insurance companies control the sales and distribution of their products when the ultimate policyholders have no relationship to the insureds? How will people's privacy be protected when so much information is attached to these policies? Will these secondary markets encourage fraud, and even murder?

Whether the insurance industry wants to admit it or not, changes are here and there's no getting the stopper back in this bottle. Secondary markets are appearing for life insurance and annuity contracts that offer alternatives to the fixed surrender values provided by the issuers.

Switch or Fight

Insurers can either accept these interlopers into their arena or provide a competitive alternative.

If the choice is to accept and adapt, then the insurers could offer administrative concessions to process these transactions more easily. Regulators could create more effective laws that protect the public (and the insurers) from fraud and deception. Lapse-supported products would entirely disappear because the market would recognize and seize upon any arbitrage opportunities.

Consider current product designs. In the present market, many permanent life insurance policies have low early-year cash values that are suppressed as the insurers recoup acquisition expenses. This creates a mismatch between future benefits and current value that could be exploited by a secondary market, but also creates a greater potential for fraud. This could be managed either by regulations that prevent early transfer of policies to unrelated third parties for consideration or by greater use of leveled compensation structures or commission chargebacks that would allow greater cash values in the early durations.

The other possible response from insurers would be to adjust their product offerings to reduce the need for this second-

ary market. Statutes would have to be enacted that give insurers the flexibility to meet this challenge head-on.

For example, life insurance policies could offer health-adjusted cash values that reflect current life expectancies. Life annuities payments might be advanced or deferred based on current health status. Policyholders might take significant comfort in limiting the sharing of their personal information with the insurance carriers. They might also be glad not to benefit outside investors with their ultimate demise.

Personal Health Information

Regardless, the medical histories of individual insureds become a part of the currency. The recently effective sections of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) reflect the American public's increased desire for privacy. In particular, people are concerned with discrimination as a result of their medical histories. They fear discrimination in the job market, in the insurance market, and in social intercourse should their health become an open secret.

At the same time, the need to share one's medical information is more common—to apply for insurance, to seek health insurance reimbursements, and now to sell an in-force life insurance policy in the secondary market. And these secondary markets are growing, creating more pressure for greater numbers of insureds to share their health information with greater numbers of investor groups.

Interestingly enough, this need to remove the potential for job discrimination may provide greater impetus to the concept of federal health insurance. Washington may not be moved by the cries of the uninsured, but instead by the demands of covered workers who want to make their medical costs none of their employers' business. The pressure of wealthy voters with large life insurance policies and annuities they want to sell may receive a greater response in Washington than the distress of the needy.

Conclusion

Forces are at work that will move insurance companies and their clients into new territory. That territory may require both to deal with risk as a more standardized and tradable commodity. Insurance companies have resisted the standardization and individuals have resisted the disclosure that could lead to the creation of tradable risks.

The trading of risks will help to expand the offerings of insurance companies and make those products more desirable in the marketplace. If potential customers feel they can get a fair price for their insurance products, they'll likely find the products to be more affordable. ●

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