Managing Financial Crisis, Today and Beyond

by Vivek Gupta

People develop an economy with their production and consumption, and people are organized in bigger units of family, city, state, country and the world. Therefore, a comprehensive analysis of the current economic crisis must consider the social and political behavior of people.

Actions Required at the Insurance Industry Level:

The current financial crisis teaches us that companies ought to develop a comprehensive risk-mitigating culture. However, if a company decides to implement such strategies on its own, most likely it will be priced out of the market. Practically, risk-mitigating culture must be adopted at the industry level. There has to be a level playing field for all participants, otherwise companies will hesitate to be the first one to make this shift.

Regulations of Pricing Assumptions:

Appropriate pricing is the most effective risk management tool. The pricing assumptions for insurance products should be regulated the way actuarial assumptions are regulated for calculating reserves. Companies can achieve flexibility in pricing by fine tuning their expected profit margins.

- The main argument in favor of not regulating pricing assumptions is that companies can charge whatever they want for their products, as long as they maintain an appropriate level of reserves to protect the policyholder's interest. This argument is based on the fact that companies will take care of their own interests and will not cut prices too much to avoid prohibitive reserve increases. During the current financial crisis, it has been noticed that the concept of "Homo Economus" did not work very well. Therefore, the phenomenon of self-preservation to provide sufficient safeguards cannot be relied upon.
- There is a severe pricing war going on in the insurance industry. Under market pressure companies are *adjusting* one of the actuarial assumptions (mortality, lapse, expenses and interest) to achieve the desired price level as well as the desired profit target. This pricing methodology enhances risks of not realizing the *adjusted* assumptions and also creates a false sense of security.
- To deal with low interest rates on the fixed income assets, companies are incorporating equities in their asset portfolios to back their liabilities. By doing so, they can assume higher rates of return relative to fixed income assets and lower their prices. Appropriate regulation will force companies to pass the cost of low interest rates to the buyers.
- When the pricing assumptions are regulated, companies will be forced to adjust their profit margin to achieve the desired price level. In that case, either companies will not cut prices significantly or they will not offer an unviable product.

Appropriate role of equities in reserves:

Equities are to be allowed to back only the pass-through portion of the reserves for the UL policies. Remaining life insurance and annuity liabilities should be backed only with high-quality, fixed-income assets.

- Buyers of insurance do not expect exposure to the stock markets; therefore they should not be exposed to the market risk. If they need such exposure they can achieve it on their own. Policyholders expect absolute certainty of payment of insurance benefit and meeting this expectation should be the objective of any insurance company. It is understandable that in the short-term insurance companies might be concerned about the increase in

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reserves due to the proposed asset allocation. However, once this change is made it will make everyone feel more secure, and hence, more comfortable.

- In an environment where risk-free interest rates are hovering around 1-2 percent, companies are still allowed to assume 9-10 percent equity returns forever to calculate their reserves. Earning an equity risk premium of 8-9 percent over an indefinite period is just impossible.
- Proponents of equity investment generally reason that the entire equity risk premium can be earned by someone who has a long-term investment horizon and can withstand short-term market volatility. Hence, over the long-term there is no equity risk. This assertion is against the principles of financial economics.
- Once the liabilities are discounted with risk-free rates under IFRS rules and the assets are still invested in equities, the equity risk will be hidden. The reserve level will be appropriate; nevertheless, risk of significant depreciation of asset values will still remain.

Stochastic models should be used to create scenarios only.

Rationale for not using stochastic models to calculate reserves, even for segregated funds:

- Each assumption used in the model is subject to some uncertainty; therefore results produced by combining such assumptions are also uncertain. However, we do not communicate that combined uncertainty. Actually, no one knows what that number is. We imperfectly communicate that one thousand scenarios generated by our model have covered what will actually happen over the next 100 years. Therefore, applying statistical measures like CTE 97.5 or CTE 99.5 to a set of one thousand uncertain scenarios create false sense of credibility in the results generated by stochastic models.
- Stochastic models hide the subjectivity used in the development of the variables and other logics deployed in the models. For example, we subjectively select the last 50 years of data to calculate average interest rates or average equity premium. No matter how long the period of history chosen, the future is going to be different than the past. The world is changing so fast that historical data is losing its predictive power.
- For the sake of convenience, it is commonly assumed that the variables are normally distributed and are independent. Just because it is practically impossible to calculate the correlations of many variables used in a model, modellers make a subjective call to assume zero correlation among most of variables. There is no empirical proof that the economic variables used in most actuarial models are normally distributed.
- The entire historical period gets the same weighting; therefore, emerging trends get little recognition. Recent trends reveal that the market volatility is increasing; it is expected to stay high and likely to keep increasing. Most stochastic models use fixed and prescribed volatility.
- Stochastic models are prone to mismanagement.

The Society of Actuaries published my article "Stochastic Model: A Telescope or a Kaleidoscope?" in the February 2004 issue of *Risks and Rewards*. This article concludes that a kaleidoscope made with red and green pieces of glass will show a red and green "view" no matter how many times one turns it. The current financial crisis has highlighted the weakness of financial models to quantify risks. **Let us not navigate our ships through rough waters by mistaking a kaleidoscope for a telescope.**

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Action Required at the System Level

Pension Reform

Due to ever increasing mortality, let alone the corporations, even the governments cannot pay for the ever increasing cost of pensions. In the current economic environment, low interest rates and volatile equity markets have further exacerbated the pension deficit. To bring the pension contributions under control, pension benefits have to be cut for the present and future pensioners.

Rebalancing Consumption and Production

Essentially, the current trade deficit in the United States represents an imbalance in production and consumption. The "optimistic" economists complacently downplayed this imbalance by saying "the country which prints the world currency does not have to worry about the deficit." Now we know that the world is searching for an alternative to the USD as a reserve currency. This imbalance must be corrected in the next few years by increasing production so that the USD is once again considered the unquestionable reserve currency for the world.

Controlling the Stock Speculations

Shareholders are borrowing to speculate in the stock market to maximize their returns in the shortest possible time. The low interest rates, ease of online trading and low cost of transactions have turned the stock markets into big casinos. The rules to protect the shareholders will only work if the shareholders have an "ownership" interest in the long-term viability of the corporation. If the shareholders keep speculating with irrational exuberance, no rule will be able to protect them.

Escaping the Debt Vortex

Type of debt:

- If I borrow and invest that money in a way which increases my net worth, that is a good debt.
- If I borrow and spend that money in a way which decreases my net worth, that is a bad debt.
- If I have to borrow to pay the interest on my existing loan, I am in a debt vortex.

The municipal, state and federal governments have trillions of dollars of visible debt and trillions of dollars worth hidden debts to cover their promises of the Social Security, Medicare and government pensions. All three levels of governments are relying on the same tax payer to pay off this debt with interest. Most businesses are under debt and are relying on the same citizen to consume their products to justify their debt. And, the citizens are taking their own personal debt to pay taxes and to consume products. Each successive layer of debt becomes more and more expensive. All entities must manage their good debt and take steps to eliminate bad debt. This debt lasso must be cut before it starts pulling countries toward the debt vortex.

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