

# Exhibit 30

## **Market Insurance Versus Self Insurance: The Tax-Differential Treatment and Its Social Cost**

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### **ABSTRACT**

Much resources have been expended over the years debating the tax treatment of insurance versus self insurance. This article reviews and analyzes the principal concepts and inconsistencies that have evolved in dealing with the issue of premium tax deductibility. The Internal Revenue Service considers market insurance as the only visible means of risk shifting and therefore the only one worthy of tax deductibility. It is argued that other forms of risk reduction can be equally effective in reducing risk. The social cost associated with the present tax policy that favors market insurance over other forms of pre-loss risk financing are evaluated and depicted. The implicit objective of the article is to shift the debate by refocusing on the question of an appropriate tax policy concerning risk financing, one that maximizes social welfare.

On July 27, 1989, the U.S Court of Appeals of the Sixth Circuit Court rendered its decision in the case of *Humana Inc. versus Commissioner* (No. 88-1403), upholding the lower court's decision that premiums paid by a parent company to its captive insurance subsidiary shall not be deductible for income tax purposes. The same court reversed the decision with regard to premiums paid by an affiliated subsidiary to a captive, allowing their deductibility. The underlying principle is based on appearance rather than economic substance. Later dubbed "the balance sheet theory," the guiding principle is the effect of the premium on the insured's consolidated balance sheet figure. If the premium is paid to a captive, there is no direct effect on the consolidated balance sheet of the parent and the wholly owned captive, there is no risk shifting, and therefore the expense is not recognized. In contrast, if the premium is paid by a subsidiary, who may insure itself with the same captive,

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assumption that exposure values are uniformly distributed over the interval  $A_1 - A_0$ .

The average social loss per displaced asset with insured exposure value between  $A_0$  and  $A_1$  is derived by spelling out equation (1):

$$\begin{aligned} L &= \left(\frac{1}{2}\right)(A_1^2 - A_0^2)P_1 - 2P_0^{1/2} \int_{A_0}^{A_1} A^{1/2} dA \\ &= \left(\frac{1}{2}\right)(A_1^2 - A_0^2)P_1 - \left(\frac{4}{3}\right)(A_1^{3/2} - A_0^{3/2}) P_0^{1/2}. \end{aligned}$$

Finally the last expression can be freed of parameters  $A_0$  and  $A_1$  by substituting their values based on equations (2) and (3):  $L = 8P_0^2P_1^{-3} \{ [(1-\delta)^{-4} - 1] - \left(\frac{4}{3}\right) [(1-\delta)^{-3} - 1] \}$  where the loss is stated as a function of only three parameters, the unit costs  $P_0$  and  $P_1$ , and the effective subsidy rate of  $\delta$ . This expression is strictly positive for  $0 < \delta < 1$  and positive  $P_0$  and  $P_1$ . If this is the loss per insured asset, the aggregate social loss is measured by this value times the number of insured assets in the interval  $A_1 - A_0$ , or, based on equations (2) and (3), in the interval  $A_1 - A_0 = 4P_0P_1^{-2}[(1-\delta)^{-2} - 1]$ .

### Implications for Public Policy

Much resources have been expended in years of debate over the questions of what forms of self insurance schemes should benefit from tax deductibility. It is apparent from the position of the U.S. Internal Revenue Service that this tax authority considers market insurance as the only visible means of pre-loss risk reduction, and therefore the only one worthy of tax deductibility. Consistent with modern financial theory, we argue that risk reduction via self insurance can be equally effective in reducing risk and often more economic in doing so. Based on this observation, we argue that the focus of the debate should be on the question of which tax policy maximizes social welfare. Consistently, the objective of this paper is to describe the social cost associated with the present tax policy that favors market insurance over competing pre-loss risk-financing methods. The nature of that cost and its potential magnitude indicates a need to reevaluate the present tax policy with a view toward equal tax treatment for all sound methods of pre-loss risk financing. The pursuit of such a policy is likely to raise difficult questions in defining, measuring, and monitoring legitimate means of pre-loss risk financing. Nevertheless, an imperfect tax system recognizing the legitimate role of self insurance is likely to be superior to the present one which arbitrarily ignores it.

### References

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