

REPLY TO “THE LIFE SETTLEMENTS MARKET: AN ACTUARIAL PERSPECTIVE ON CONSUMER ECONOMIC VALUE”

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In this article, we review the Deloitte Consulting-University of Connecticut Actuarial Center Report (“Carriers’ Report”) on the secondary market for life insurance. We identify several problems with the actuarial model used by the authors, including the use of mortality tables, tax assumptions, and impairment levels. Setting aside those serious actuarial errors, most of the study’s findings violate basic economic logic. The study argues that holding a policy until death is the best strategy for policyowners in almost every contingency. While it may be true that holding a policy until death maximizes the value of the policy at the time of death, it does not necessarily follow that such a strategy is the utility-maximizing strategy for all policyowners at any point in time before death. The Carriers’ Report concludes that participation in the secondary market generally harms policyowners, and greater regulation is therefore needed. Because these conclusions are based on faulty premises, they should generally be ignored.

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I. INTRODUCTION

This paper evaluates a study by the Deloitte Consulting-University of Connecticut Center for Actuarial Studies & Risk Management on the secondary market for life insurance (“Carriers’ Report”).¹ The Carriers’ Report was funded by Mass Mutual, Prudential, and Travelers.² Hence, it is not surprising to learn that their “findings” are decidedly anti-policyowners³ and pro-incumbent insurance carriers.

Such findings stand in sharp contrast to the existing academic literature on the consumer benefits from a robust secondary market for life policies.⁴ In those

1. Deloitte Consulting & University of Connecticut Actuarial Center, *The Life Settlements Market: An Actuarial Perspective on Consumer Economic Value* (May 2005) [hereinafter *Carriers’ Report*].

2. Life Settlements Project Reception, available at http://www.math.uconn.edu/actuarial/life_settlements.php (“A reception was held on October 29 to thank the sponsors, Mass Mutual, Prudential and Travelers.”); Deloitte-UConn Presentation at the 2004 SOA Annual Meeting, Dec. 2004, at 2 (“Study was funded by a consortium of major life insurance companies.”) [hereinafter *Deloitte-UConn Presentation*].

3. A policyowner is “the [o]wner of a life insurance policy or a certificate holder under a group policy,” but does not include the life settlement provider. See National Conference of Insurance Legislators, Life Settlements Model Act, Nov. 2000 Version.

4. See, e.g., Neil A. Doherty, Brian A. O’Dea, & Hal J. Singer, *The Secondary Market for Life Insurance Policies: Uncovering Life Insurance’s “Hidden” Value*, 6 MARQUETTE ELDER’S ADVISOR 95 (2004), Neil A. Doherty & Hal J. Singer, *Regulating the Secondary Market for Life Insurance Policies*, 21 JOURNAL OF INSURANCE REGULATION 63 (2003); Neil A. Doherty & Hal J. Singer, *The Benefits of a Secondary Market for Life Insurance*, 38 REAL PROPERTY, PROBATE & TRUST JOURNAL 449 (2003), [hereinafter *Secondary Market Benefits*]. Several leading publications, including *The*

papers, the authors estimated the consumer benefits associated with participation in the secondary market, as measured by the difference between a policy's surrender value and the amount by which the policyowner was compensated by a life settlement provider, summed across all policyowners who exercised their option to sell their policies in the secondary market. They found that life settlement providers improved policyowners' welfare by over \$240 million in 2002. Extending their analysis forward, life settlement providers improved policyowners' welfare by over \$686 million 2004.⁵

The authors noted that their estimate vastly understates the true positive effect of the secondary market on policyowners because it does not incorporate the welfare gains of policyowners from the unexercised option to sell their policies in the future.⁶ Moreover, a large portion of life settlement transactions lead to new, more cost-efficient life insurance sales with better guarantees provided to consumers. It is against that backdrop of significant consumer benefits that the Carriers' Report suggests the opposite—namely, that a life settlement is of limited value to a policyowner.

In Part II, we analyze the actuarial model. Our review indicates that the actuarial analysis in the Carriers' Report has a number of serious problems that need to be resolved before one could seriously consider their economic and policy conclusions, which are examined in Parts II and III, respectively. First, the proposed intrinsic economic value (IEV) is not an economic value; it is a theoretical value that is unattainable in the economic marketplace. Second, computation of the proposed IEV depends on the creation of an appropriate mortality table that accurately reflects the insured's current health and survival chances. The substantial heterogeneity in mortality risks among insureds combined with the lack of relevant and credible data on completed life settlement transactions undermines any confidence in individual-specific mortality tables. Third, the taxation assumptions in the actuarial valuation are incomplete and misleading, and they bias the results in favor of the authors' conclusions. Fourth, the impairment levels assumed in the actuarial valuation are not representative of life settlement sales, and they also bias the results in favor of the authors' conclusions. The reader is left with the impression that the typical insured who sells his policy to a life settlement provider has severely impaired health. In

Economist and the *Wall Street Journal*, have also concluded that the secondary market for life insurance generates large welfare gains for policyowners. See, e.g., *New Lease on Life: The Secondary Market in Life-Insurance Policies is Good for Consumers*, THE ECONOMIST, May 17, 2003 ("Before the life-settlement industry grew, life-insurance companies were the sole buyers of unwanted policies. Now consumers have a choice, and the chance to get more if they cash their policies in."); Rachel Silverman, *Recognizing Life Insurance's Value*, WALL. ST. J., May 31, 2005 ("Selling an insurance policy frees up cash for current needs, such as pricey long-term-care insurance, especially if the policyholder doesn't have other assets that can be easily liquidated to pay the premiums.").

5. This calculation assumes that (1) Coventry accounts for 25 percent of all life settlement transactions and (2) the industry average settlement price to surrender value multiple is equal to the multiple paid by Coventry (equal to 2.79 in 2004). Coventry acquired 798 policies in 2004. The total surrender value associated with those policies was \$95,927,214. Coventry paid \$267,546,029 in settlements for those policies, generating a surplus of over \$171 million relative to surrender values.

6. *Secondary Market Benefits*, *supra* note 4, at 473 tbl. 2.

reality, the typical insured has “moderately” impaired health. Fifth, the numerical results in Exhibits 4 and 5 in the Carriers’ Report are not consistent with the ranges of values reported from life settlement sales. The inconsistency undermines our confidence in the analysis.

Setting aside those serious flaws in the actuarial model, we review the major economic findings of the study in Part III. Using extremely limited and highly misleading information gleaned from New York Department of Insurance filings, the Carriers’ Report incorrectly concludes that (1) holding a policy until death is the best strategy for policyowners; (2) the target market for a life settlement is limited to policyowners with impaired mortality; (3) within the target market, a life settlement can only benefit a policyowner with either no estate needs or with no other sources of liquidity; (4) a policyowner cannot recover the lost economic value associated with a life settlement by investing the proceeds from the sale along with the freed-up future premiums in the stock market; (5) life settlement values are determined solely by the life settlement provider; (6) policyowners cannot capture 100 percent of the economic value of their policies because life settlement providers discount future cash flows on internal hurdle rates rather than at the risk-free interest rate; (7) large transaction costs and profits are causing policyowners to lose economic value; and (8) in contrast to the altruistic behavior of life insurance carriers, life settlement providers promote their own interests over the interest of policyowners. We explain why each of those findings is flawed. In general, the authors do not understand—or simply ignore—the preferences that are revealed by policyowners when they allow their policies to lapse at steeply discounted values. But for the innovation of a life settlement transaction, *a policyowner would still allow his or her policy to lapse*.

The Carriers’ Report estimates that policyowners with life expectancy in excess of 24 months who sold their policy to a firm licensed as a viatical company in New York (and whose transactions were thus recorded by the New York Department of Insurance) lost \$98.5 million in value during the four-year period from 2000 through 2003 (equal to \$143.2 million in the alleged IEV of all policies sold less \$44.7 million in LSV) or \$24.6 million annually. Because a firm that is licensed as a viatical company does not generally target the same set of customers as a life settlement provider, it is not appropriate to use the ratio of LSV to cash surrender values (CSV) paid by viatical settlement companies as a proxy for the ratio of LSV to CSV paid by life settlement providers. In particular, viatical companies generally target individuals who are terminally or chronically ill and who often are in need of cash, whereas life settlement providers generally target individuals or trusts who are not terminally or chronically ill and who often have multiple policies in force. Hence, it is no surprise that the Carriers’ Report finds the ratio of LSV to CSV paid by viatical companies in the New York Department of Insurance database to be significantly less than the ratio paid by life settlement providers in practice. Stated differently, by examining the payouts made by viatical companies only, the empirical analysis in the Carriers’ Report is subject to a serious, and potentially highly distorting, selection bias that has not been properly addressed.

More importantly, comparison of LSV values to IEVs is flawed because one must assume that, contrary to historical data on lapse rates, 100 percent of the policies in the New York Department of Insurance database would have been held until death but for the life settlement transaction. Using a multiple of life

settlement values to cash surrender values of 2.5, and assuming more realistically that 100 percent of those policies would have been surrendered to the issuing carrier but for the life settlement transaction, we estimate that the cash surrender value associated with those policies would have been worth just \$17.9 million (equal to \$44.7 divided by 2.5), which implies that life settlement transactions *increased* consumer welfare by \$26.8 million (equal to \$44.7 million less \$17.9 million). In summary, the Carriers' estimate of \$98.5 million in value destruction must be rejected.

In Part IV, we consider and reject the policy prescriptions in the Carriers' Report, which call for greater disclosure by life settlement providers. First, it is impossible to produce individual IEVs for insureds who are considering the sale of their policy. Second, it is a central flaw of their argument—and a bit hypocritical—that the incumbent carriers do not disclose to policyowners their option to sell to a third party at a higher price at the time of surrender, yet the same carriers insist that life settlement providers remind policyowners of their option to hold the policy until death. If the authors were really concerned about maximizing the policyowners' share of the economic value, then they should encourage vigorous competition for the repurchase of the policy among life settlement providers and the incumbent carrier, which would result in a life settlement value approximately equal to the economic value of the policy.

II. THE REPORT'S ACTUARIAL MODEL IS FUNDAMENTALLY FLAWED

The Carriers' Report presents an actuarial valuation of the life settlement industry that looked at differences in payment amounts between cash surrender values (CSVs) offered by life insurance carriers and corresponding life settlement values (LSVs) offered in life settlement transactions. The actuarial valuation expanded the standard LSV to CSV comparison to include new comparisons using what the authors called the "intrinsic economic value" (IEV) of the insurance contract based on the assumption that a policyowner retains the insurance contract until his death.

A. The Proposed "Intrinsic Economic Value" Is a Meaningless Concept

The Carriers' Report noted that the proposed IEV measure "has never been analyzed or quantified in previous studies and this is the main thrust of this section of our research."⁷ Nonetheless, the Carriers' Report concluded with the recommendation that the National Association of Insurance Commissioners (NAIC) and the National Conference of Insurance Legislators (NCOIL) modify their existing model regulations to require that life settlement providers calculate and disclose the proposed IEV measure to policyowners before the sale of their policies. Given that the proposed IEV measure has not been subjected to external peer-review and that its properties have not been studied by other qualified investigators, such a recommendation is, at best, premature.

7. Carriers' Report, *supra* note 1, at 4.

1. If an Observable Market Value for a Given Asset Exists, Then the Use of Present Value Methods Is Not Appropriate

The term “intrinsic economic value” was introduced in the Carriers’ Report to describe a measure intended to reflect the present value of a life insurance policy that is retained until the time of the insured’s death. The IEV was formally defined as the difference between (1) the actuarial present value (APV) of future death benefits and (2) the APV of future premiums.⁸ The term “actuarial present value” is a standard term in actuarial science. It refers to “the value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.”⁹ Among the possible sets of actuarial assumptions are the future survivorship rates and the future interest rates.

The term “economic value,” as used by economists, is synonymous with the term “market value.”¹⁰ The actuarial literature also uses the term “economic value” in describing intended outputs of actuarial appraisals.¹¹ These concepts are closely related to the term “fair value,” which is defined in both the accounting and actuarial literature as the valuation of an asset or liability.¹² The actuarial definition of “fair value” allows for the case in which market trades are infrequent or inefficient by using information from other financial instruments:

A fair value is an estimate of the price of a financial instrument provided by a market value model for another financial instrument that is potentially valid with respect to observations of prices and other market behavior of the first instrument.¹³

The actuarial literature also recognizes that a market value generally is a fair value: “In the case of assets or liabilities traded in a deep liquid market, fair value

8. *Id.* at 4

9. Actuarial Standards Board, *Glossary of Actuarial Terms* (Washington, D.C., 1994).

10. P.A. SAMUELSON & W.D. NORDHAUS, *ECONOMICS* 495 (McGraw-Hill 13th ed. 1989) (“[T]he economist prefers to use the *market value* of a good in measuring its value. The market value measures the value of a good in its highest and best use.”).

11. *See, e.g.*, Actuarial Standards Board, *Actuarial Standard of Practice No. 19*, at viii, 4 (Washington, D.C., 1991) (“Within the insurance and actuarial communities, the concept of actuarial appraisal connotes the development of the underlying economic value Economic value generally is determined as the present value of future cash flows.”).

12. There are two equivalent terms in the actuarial literature. *See* Financial Accounting Standards Board, *Statement of Financial Accounting Concepts No. 7*, at 8 (2000) (“The amount at which that asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale.”); *See also* *Action Alert No. 03-19*, Financial Accounting Standards Board (2003) (“[T]he amount for which an asset or liability could be exchanged in a current transaction between knowledgeable, unrelated willing parties when neither party is acting under compulsion.”).

13. Casualty Actuarial Society & the Society of Actuaries, *Principles Underlying Actuarial Science*, Exposure Draft, Oct. 15, 1999, at 16 (1999).

is generally taken as equal to market value.”¹⁴ Thus, a common aspect of all three terms (economic value, market value, and fair value) is that each refers to the price that would be in effect in an arm's length transaction between knowledgeable willing parties.

It bears emphasis that the accounting literature suggests that the use of present value methods should be limited when observable market prices are available:

If a price for an asset or liability or an essentially similar asset or liability can be observed in the marketplace, there is no need to use present value measurements. The marketplace assessment of present value is already embodied in such prices.¹⁵

Hence, if an observable market value for a given asset exists, then the use of present value methods such as the APV calculation described above is unnecessary. Conversely, if an observable market value does not exist, then the use of APV calculations may be needed as part of a market value model to estimate the fair value (or the economic value) of the asset.

2. *The Life Settlement Value, Not the “Intrinsic Economic Value,” Is the Appropriate Measure of the Economic Value of the Life Insurance Policy*

The Carriers' Report presented formulas for the CSVs and the LSVs, both of which had essentially the same APV-structure as the IEV.¹⁶ Each value was expressed as the difference between two related APVs: one based on future death benefits and the other on future premiums. A fundamental distinction between the IEV on the one hand and both the CSV and the LSV on the other is that the latter two measures have observable market values whereas the IEV does not.

Exhibit 2 in the Carriers' Report summarizes differences between the CSV and LSV. Exhibit 2 states that the CSV values are “set by regulation.”¹⁷ A more precise statement would be that the regulations generally define a range within which the insurance carrier is free to offer any value it chooses.¹⁸ Exhibit 2 also states that the LSV values are “set by the Life Settlements company.”¹⁹ More will be said on this claim in Part III, but a more precise statement would be that, in certain circumstances, the regulations define a minimum value above which the life settlement company is free to compete with other such providers by offering any value it chooses.²⁰ In both cases, the willingness of large numbers of

14. Institute of Actuaries, *Fair Valuation of Liabilities*, at 2 (2001).

15. Financial Accounting Standards Board, *Statement of Financial Accounting Concepts No. 7*, at 12 (2000).

16. The two exceptions were modifications for expenses and taxes.

17. *Carriers' Report*, *supra* note 1, at 4 exh. 2.

18. Sections 2 and 6 of the NAIC Standard Nonforfeiture Law for Life Insurance requires that CSVs meet or exceed specified minimum values; the Internal Revenue Code (IRC) §7702(b)(1) requires that CSVs do not exceed specified maximum values (also see §7702(d)(1)).

19. *Carriers' Report*, *supra* note 1, at 4 exh. 2.

20. The NAIC Settlement Model Regulation requires that LSVs meet or exceed specified minimum values for terminally or chronically ill insureds. Under one alternative, when the insured's life expectancy is at least 25 months, the LSV must be at

policyowners to accept settlements at the offered prices indicates that the CSVs and LSVs are inherently market values.

Exhibit 3 in the Carriers' Report summarizes differences between the LSV and IEV. Exhibit 3 states that the IEV and LSV both are determined at the time of settlement based on impaired mortality. According to the authors, the IEV requires a lower (risk-free) rate of return on investments, and the LSV includes transaction costs, and, possibly, includes additional mortality margins. The Carriers' Report offers the following rationale for the lower rate of return on the IEV: "A risk-free interest rate is appropriate because for most insurance products, the cash flows are known with certainty and do not fluctuate with the general economic cycle."²¹ This statement ignores the fact that the time of death of the insured is not known at the time of settlement and generally ranges from two to fifteen years. Moreover, the conclusion that the IEV requires a lower (risk-free) rate is incorrect because a policyowner who retains an insurance contract until his death faces the identical set of mortality timing risks as an investor who purchases the policy and retains it until the death of the policyowner.

Indeed, the case can be made that the IEV should be modified to reflect a *higher* rate of return on investments. In addition to the common mortality timing risks faced by both the policyowner and the life settlement investor, the life insurance policy is an asset with low liquidity. The fact that several thousands of policyowners seek and accept life settlement bids each year indicates that the rate of return actually accepted by such policyowners is higher, not lower, than the rate of return required by life settlement investors. Mathematically, a higher rate of return would be required to produce equality between a modified IEV and the LSV at the time of settlement, given the occurrence of transaction costs that must be covered before the LSV can be transferred to the policyowner. Alternatively, because the price offered for an illiquid asset (for example, a life insurance policy) generally will be less than that offered for a liquid asset with identical cash flows, one can solve for the extra premium that must be added to the rate of return for the liquid asset to generate the observed price for the illiquid asset.

The specification of the IEV in the Carriers' Report uses a risk-free interest rate that is *lower* than the specified LSV hurdle rate. This assumption produces IEV values that are larger than the sum of the LSV and the settlement transaction costs. The IEV and LSV are both determined at the time of settlement, and both represent APVs of the same set of cash flows to and from the insurance carrier. But only the LSV includes essential transaction costs that are components of any realistic pricing model—that is, the LSV reflects the price that would be in effect in an arm's length transaction between knowledgeable willing parties. Hence, the LSV, not the IEV, is the appropriate measure of the economic value of the life insurance policy.

In summary, the IEV is a theoretical measure of the net present value of the future premium and death-benefit cash flows, discounted at a risk-free rate of return with no transaction costs. Hence, it represents an upper bound of the range of the LSVs, assuming (as in the Carriers' Report) that the LSVs are computed without mortality margins.

least as large as the CSV. See Viatical Settlements Model Regulation, § 5 [hereinafter *NAIC Model Regulation*].

21. *Carriers' Report*, *supra* note 1, at 4.

B. The Proposed "Intrinsic Economic Value" Depends on the Creation of an Appropriate Mortality Table

Computation of the proposed IEV depends on the creation of an appropriate mortality table that accurately reflects the insured's current health and survival chances. The Carriers' Report used the 1975–80 Basic Mortality Table²² to calculate the LSV and IEV measures summarized in Exhibits 4 through 6. The mortality rates in the 1975–80 Basic Mortality Table were multiplied by impairment rating factors of 5, 10, 15, and 20 to construct the mortality tables for the four selected impairment levels.

In one common pricing method known as the "deterministic method,"²³ the only information required is an estimate of the life expectancy of the policyowner. Life settlement providers often obtain several such estimates; they are required by the NAIC Model Act to disclose all such estimates to the life settlement purchasers (investors).²⁴ With bids from several life settlement providers, each having several estimates of life expectancy for a given policyowner, it is clear that there can be no unique estimate of the proposed IEV.

An alternative pricing method known as the "probabilistic method" is based on projections of future mortality rates based on attained age, gender, underwriting characteristics, and estimated life expectancy.²⁵ Like the deterministic method, the probabilistic method depends on the law of large numbers to ensure that the observed and predicted distributions of times of death are sufficiently close that the required rates of return are realized.

Neither method attempts to produce projections of future mortality rates that are intended to be accurate for *individual* policyowners. One expert in insurance medicine described the problem as follows:

It is theoretically possible to determine extra premiums for any impairment, based on a rating (mortality) table applicable to that impairment. Such tables could, if extensive enough, individualize ratings across all ages. However, such an approach is impractical given the enormous number of pricing classes it would require and the difficulty in obtaining sufficient data to define precise patterns for every impairment at every age.²⁶

Hence, mortality tables for individual policies are theoretically possible but practically unachievable.

The difficulties described above are in the context of underwriting for *original* issue life insurance contracts. In the context of re-underwriting for life settlement purchases with impaired lives, there are additional issues that serve to further increase the challenges:

22. See Society of Actuaries, *Transactions of Society of Actuaries 1982 Reports*, at 55–81 (1982) [hereinafter *1975–80 Basic Mortality Table*].

23. See, e.g., D. Zollars, S. Grossfeld, & D. Day, *The Art of the Deal: Pricing Life Settlements*, CONTINGENCIES, 34–38 (Jan./Feb. 2003) [hereinafter *Art of the Deal*].

24. Section 8E(1) of the NAIC Viatical Settlements Model Act [hereinafter *NAIC Model Act*].

25. *Art of the Deal*, *supra* note 23.

26. MEDICAL SELECTION OF LIFE RISKS 90 (R.D.C. BRACKENRIDGE & W.J. ELDER eds., Stockton Press 1992) [hereinafter *Medical Selection of Life Risks*].

- Some unknown fraction of life settlement policyowners would be declined for coverage under substandard ratings of original issue life insurance carriers. Thus, the underwriting experience of original issue life insurance carriers will provide no information on how such impaired lives compare to those for whom coverage was offered.
- Some unknown fraction of life settlement policyowners will have multiple impairments. A recent study published by the Medical Information Bureau underscores the difficulties in assessing the separate and joint impacts of multiple impairments on life insurance underwriting.²⁷
- The impact of multiple impairments is highly relevant to life settlement transactions. A recent study of mortality among the U.S. elderly found that, for the number of reported diseases or medical conditions that caused or contributed to death, the *average* value was 2.0, with many deaths having 3 or 4 reported causes.²⁸
- Relevant and credible data on completed life settlement transactions are also not available due to the immaturity of the life settlement industry.

The above points combine to undermine one's confidence in individual-specific mortality tables and, derivatively, of any individual-specific IEV measure generated as a byproduct of the life settlement process. Hence, it is unreasonable to suggest that individual IEVs should be generated at the time of life settlement.

C. *The Taxation Assumptions are Incomplete and Misleading*

It is generally accepted in actuarial and financial practice that one should compare after-tax dollars with after-tax dollars and pre-tax dollars with pre-tax dollars. For example, after-tax dollars should not be compared with pre-tax dollars. The Carriers' Report adjusts the LSV for an assumed corporate tax rate of 35 percent, but it made no tax adjustments to the IEV or the CSV computations. Hence, comparisons of LSVs to IEVs (and comparisons of LSVs to CSVs) are comparisons of after-tax dollars to pre-tax dollars. The effect is that the LSVs are downwardly biased in all of the comparisons provided in the Carriers' Report. In particular, LSVs appear highly unfavorable compared to the IEVs, and LSVs appear less favorable compared to the CSVs.

Admittedly, accounting for the impact of taxes is complicated by the fact that taxes have highly individualized effects that are difficult to analyze without knowledge of individual circumstances or access to confidential sources of data on collections of individuals. Nonetheless, the Carriers' Report could have identified this complication as an issue and discussed the potential for bias.

27. Multiple Medical Impairment Study, Center for Medico-Actuarial Statistics of MIB, Inc. (1998) [hereinafter *Multiple Medical Impairment Study*.]

28. See Eric Stallard, *Underlying and Multiple Cause Mortality at Advanced Ages: United States 1980–1998*, NORTH AMERICAN ACTUARIAL JOURNAL 6(3): 64–87 tbl. 7 (2002) (“The patterns of change over age and time of the 14 leading causes exhibited distinct characteristics in one or more of the tables presented, demonstrating unequivocally that the diseases are neither homogeneous nor independent. This suggests that standard models such as the multiple decrement life table model that assume independent competing risks may be invalid.”).

Among the possible tax adjustments that could have been identified and discussed are the following:

- The use of a 35 percent corporate tax rate for the LSV ignores the fact that such taxes are not paid by tax-exempt entities that invest in life settlement purchases.
- The lack of any tax adjustment to the IEV ignores the fact that all or a significant part of the IEV may be subject to federal and state estate taxes. Under present law the maximum federal estate tax rate decreases from 47 percent to 45 percent during the period 2005 to 2009, to 0 percent in 2010, and then increases to 55 percent in 2011 and beyond.²⁹ Moreover, if the policyowner is a Connecticut resident, then he or she may have to pay an additional 16 percent in Connecticut estate taxes. Nineteen other states have similar taxes.³⁰ Adjusting for these differences would be sufficient to reverse *all* of the comparisons shown in Exhibit 5, except in the case that the policyowner was “lucky enough” to die in 2010.
- The positive excess of the CSV over the accumulated premiums is treated as ordinary income and is federally taxed at the policyowner’s marginal rate, which may be as high as 35 percent.³¹
- The tax treatment of the excess of the LSV over the CSV may be federally taxed at the long-term capital gains marginal tax rate, which may be as high as 15 percent, with the remaining excess over the accumulated premiums generally treated as in point 3.³²
- Accounting for the relatively low maximum federal capital gains rate in point 4 and the relatively high federal estate tax rate in point 2 would still yield a reversal of all but two of the 30 comparisons in Exhibit 5.
- Accounting for state income and estate taxes would further confound the comparisons.

In addition to these complications, the mathematical formula used for implementing the 35 percent corporate tax rate for the LSV is not correct.³³ The formula assumes that the loaded premium is paid for a *fixed period* equal to the life expectancy of the policyowner. In actuality, the premiums are paid as long as the person is alive, which may be significantly longer or shorter than the estimated life expectancy duration.

D. The Assumed Impairment Levels Are More Severe Than the Actual Impairment Levels of the Typical Insured Who Sells His Policy to a Life Settlement Provider

As noted earlier, the Carriers’ Report used the 1975–80 Basic Mortality Table³⁴ to calculate the LSV and IEV measures that are summarized in Exhibits 4 through 6. As part of these calculations, the mortality rates in the 1975–80 Basic Mortality Table were multiplied by impairment rating factors of 5, 10, 15, and 20

29. *States Move to Beef up Estate Taxes*, WALL ST. J., July 13, 2005, at D1.

30. *Estates of Pain*, WALL ST. J., Aug. 1, 2005, at A8.

31. Internal Revenue Code (IRC) §72(e)(5)(A).

32. Internal Revenue Code (IRC) §101(a)(1) excludes all or part of such payments from gross income if the policy owner is “terminally ill” or “chronically ill,” as defined in §101(g)(4). The separation of the excess of the LSV over accumulated premiums into capital gains and ordinary income is not explicitly addressed in the tax code.

33. *Carriers’ Report*, *supra* note 1, at 5.

34. *1975–80 Basic Mortality Table*, *supra* note 22.

to construct the mortality tables for the four selected impairment levels. No rationale was provided for selecting these specific impairment levels. The reader is left with the impression that these are typical values in the life settlement industry—that is, the typical insured who sells his policy has severely impaired health with less than one year to live. In reality, the typical insured has “moderately” impaired health with roughly six years to live. This impression is subtly reinforced by the use of levels 10 and 20 in Exhibit 6, in which calculations of the probability that IEV exceeds LSV are presented.

To assess how representative the selected rating factors were, one could consider the range of estimated life expectancies at typical attained ages for policyowners who entered into a life settlement transaction. One report indicates that:

For the single life policies, the average age of the male insureds was 78.3 years and of the female insureds it was 80.6 years. For the second-to-die policies, the average ages of the male/female combinations were 80.4/79.9 years respectively.

The average life expectancy for the male insureds, as determined by the life settlement company underwriters, was 6.15 years. The corresponding life expectancy for the female insureds was 5.79 years. For the second-to-die policies, the average life expectancy of the male/female combinations was determined to be 7.32 years.³⁵

Hence, the average age of a person who sells his policy is at least 78 years and the average life expectancy is at least 6 years. There appears to be little gender difference in the life expectancy values.³⁶

With this information, one can refer to Table 5.6 in Brackenridge and Elder’s book, which presents life expectancies by attained age for males with various impairment rating factors ranging from 1 to 5, and then increasing to 10.³⁷ Part of the table is replicated below:

Age	Impairment	Life Expectancy
75	5	3 years
75	10	1 year
80	5	2 years
85	10	1 year

The interpolated life expectancy at age 78 is 2.4 years for impairment rating 5 and one year for impairment rating 10. Hence, the life expectancies for

35. H.G. Ingraham & S.S. Salani, *Life Settlements as a Viable Option*, J. FIN. SERVICE PROFESSIONALS 74 (2004).

36. The attained age values reported above are generally consistent with internal reports of the average age of a policyowner selling to Coventry First. Personal communication of authors with Alan Buerger, CEO of Coventry First, September 7, 2005.

37. *Medical Selection of Life Risks*, *supra* note 26, at 98. The base table “closely approximates the 1980 CSO Male Non-smoker Basic table” so the comparison with the 1975-80 Basic Mortality Table used in the Carriers’ Report should be valid.

impairment ratings 15 and 20 must be below one year. None of these are close to the life expectancies of six years or more, which are typical of life settlement policyowners. Indeed, they differ by a factor of 2.5 to 6.0. One can only conclude that the numerical values presented in the examples in Exhibits 4 through 6 in the Carriers' Report have little relevance to the values that might have been computed for life settlement policyowners.

An even more direct assessment of the reasonableness of the impairment factors used in the Carriers' Report may be conducted by observing that the average impairment ratings among substandard lives in the MIB study cited earlier were 2.03 for males and 1.84 for females; moreover, only one of 27 specific impairments with credible experience data had an impairment rating over 5.0 (male myocardial infarction, at 5.27).³⁸ Again, one can only conclude that the numerical values presented in the Carriers' Report have little relevance to life settlement policyowners.

E. The Implied Life Settlement Values as a Multiple of Cash Surrender Values Are Not Consistent with the Ranges of Values Reported by Life Settlement Providers

The CSV measures in Exhibit 4 of the Carriers' Report were based on the Commissioners 1980 Standard Ordinary (CSO) Mortality Table.³⁹ The rationale for using this particular table is not discussed by the authors, but the use of this table for computing cash values seems reasonable given that life insurance carriers are generally required to use this table for this purpose.⁴⁰

The LSV and IEV measures summarized in Exhibits 4 through 6 of the Carriers' Report were based on the 1975–80 Basic Mortality Table.⁴¹ The rationale for using this particular table also is not discussed by the authors of the Carriers' Report. In this case, however, its use does not seem reasonable for the purpose of computing current LSVs or IEVs. The mortality experience reflected in this table is now more than 25 years out of date and it is highly unlikely that any life settlement provider would use such a table when more recent and relevant alternatives are readily available.⁴²

Notwithstanding this potential for bias, our interest is in the reasonableness of the ratios of the LSVs to the CSVs presented in Exhibit 4 of the Carriers' Report, reproduced here in Table 2.

38. *Multiple Medical Impairment Study*, *supra* note 27, at 26.

39. Report of the Special Committee to Recommend New Mortality Tables for Valuation, *Transactions of Society of Actuaries* 33: 617–669.

40. See Section 5cH(6) of the NAIC Standard Nonforfeiture Law for Life Insurance. A new table (the 2001 Commissioners Standard Ordinary (CSO) Mortality Table) may be used for computing cash values for recently issued life insurance policies; the new mortality rates are significantly (i.e., generally 20–50%) lower than in the 1980 CSO Table.

41. *1975–80 Basic Mortality Table*, *supra* note 22.

42. For example, the 2001 Valuation Basic Table in *Final Report of the American Academy of Actuaries' Commissioners Standard Ordinary Task Force*, American Academy of Actuaries, Washington, D.C., June 2002.

TABLE 2: RATIO OF LIFE SETTLEMENT VALUES
TO CASH SURRENDER VALUES

Age	Issue Age: 45 Years Impairment Levels				Issue Age: 55 Years Impairment Levels			
	5	10	15	20	5	10	15	20
65	1.17	1.60	1.83	1.98	1.58	2.31	2.69	2.94
70	1.14	1.45	1.61	1.70	1.36	1.80	2.02	2.15
75	1.11	1.33	1.44	1.49	1.24	1.53	1.66	1.73
80	1.09	1.25	1.29	1.29	1.17	1.37	1.41	1.41

Source: Carriers' Report at 5 exh. 4.

As Table 2 shows, the ratios range from a low of 1.09 to a high of 2.94 across the range of impairment ratings and issue ages considered. The average of the 32 ratios is 1.60. The average for the two lowest impairment levels (5 and 10) is 1.41 and the average for the lowest impairment level (5) is 1.23. The average for age 75 is 1.44 and the average for age 80 is 1.29, indicating that the average for age 78 is about 1.35.

Following the same line of reasoning as in Section D., the average ratio of 1.35 for age 78 can be compared with the corresponding industry average over all life settlement providers, which was reported to be 3.6 (the ratio reported by Coventry First was 3.8 in 2002).⁴³ Hence, the industry average from 2002 is 2.67 times larger than the average for age 78 and 2.25 times larger than the average for all ages shown in Table 2. In both cases, the comparisons indicate that the results of the analysis in the Carriers' Reports are inconsistent with the range of values reported by life settlement providers.⁴⁴ Even with the lower settlement-to-surrender multiples reported by Coventry in 2004 (equal to 2.8), the estimates from the Carriers' Report are still less than half of actual market data.

Because the industry average impairment level is substantially below 5 (see Section D.), the average ratio for the lowest impairment level (1.23) might be the best estimate that can be extracted from the Carriers' Report. But this ratio differs from the reported industry average of 3.6 from 2002 by an even larger factor, 2.93. Indeed, given that there is no single ratio in Table 2 that is close to the industry average, there can be no subset of the results in the table that will resolve the inconsistency. Moreover, the use of more current mortality tables for the LSV calculations would *lower* the estimates of the LSVs, thereby increasing the discrepancy. One is left to conclude that the ratios of the LSVs to the CSVs produced in the Carriers' Report are wholly inconsistent with the corresponding ratios actually observed in the life settlement industry.

43. See *Secondary Market Benefits*, *supra* note 4, at 16.

44. If LSVs and CSVs were as close in value as the authors suggest, then it would be difficult to explain the growing preferences of insureds for a life settlement over a cash surrender. In June 2000, William Koenig, Chief Actuary of Northwestern Mutual predicted that if "an issuing company does not provide fair value [for a cash surrender], policyholders will proceed directly to a secondary market." See William C. Koenig & Stephen H. Frankel, *Don't Forfeit Nonforfeiture*, BEST'S REVIEW, June 2000.

III. EVEN IF THE ACTUARIAL MODEL WERE RELIABLE, THE REPORT'S MAJOR "FINDINGS" VIOLATE BASIC ECONOMIC LOGIC

The study's authors commit several errors in their analysis of the secondary market for life insurance. In this section, we highlight the study's major "findings" and attempt to explain the errors in logic. We begin with the assertion that the best strategy for almost all policyowners is to retain their policies until death. The one catch, of course, is that while the IEV of holding the policy until death might exceed the LSV, the policyowner cannot realize the IEV until she dies.

A. *Holding a Policy until Death Is the Best Strategy for Policyowners with Impaired Health*

The Carriers' Report offers an analytical framework to compare valuations under three different strategies for a policyowner: (1) surrender the policy to the original insurer ("surrender"), (2) sell the policy to a life settlement provider ("sell"), and (3) hold the policy until death ("hold"). The study purports to show that a "hold" strategy is preferred to a "sell" strategy for almost any combination of the policyowner's issue age, attained age, and impairment levels.⁴⁵ The study also purports to show that "sell" is preferred to "surrender" for almost any combination of the policyowner's issue age, attained age, and impairment levels.⁴⁶ By the transitive property, it follows that "hold" is preferred to "surrender." But if this analytical framework captures the actual decision-rule used by real policyowners, then the authors would be hard-pressed to explain why *anyone* would ever surrender or sell his policy.

There are two explanations for this seeming paradox. The first explanation is that any policyowner who does not hold his policy until death is irrational. An alternative and more likely explanation is that the study's decision framework does not fully capture the actual decision-making process used by policyowners. Assuming a rational utility-maximizing agent, a policyowner surrenders his policy back to his original insurer whenever his *utility* (not the *value* of his policy at the time of death) associated with "surrender" exceeds his utility associated with the "hold" strategy. The most likely explanation for why a rational policyowner chooses "surrender" over "sell" is that the policyowner was not informed about the settlement option. It is not reasonable to assume that a policyowner was not informed about the "hold" strategy at the time of his *surrender*—the hold strategy is the default strategy from the issuance of the policy.

Likewise, a policyowner sells his policy to a life settlement provider because his *utility* (again, not the *value* of his policy at the time of death) associated with "surrender" exceeds his utility associated with *both* a strategy of "hold" and a strategy of "surrender." Consider the case in which a policyowner has several policies in force. The proceeds from the sale of one of the policies can be used to acquire another policy at better terms (for example, given a change in interest rates) or to acquire more liquid assets. Both of these alternatives increase the utility of a policyowner relative to the "hold" option. Again, it is not reasonable

45. *Carriers' Report*, *supra* note 1, at Exhibit 4.

46. *Id.* at Exhibit 4.

to assume that a policyowner was not informed about the “hold” strategy at the time of his *settlement*—the hold strategy is the default strategy from the issuance of the policy.⁴⁷

If one embraces the framework of the Carriers’ Report as an accurate depiction of consumer preferences, then one is left to conclude that (1) all policyowners who surrender their policies back to the original insurer are irrational and (2) all policyowners who sell their policies to life settlement providers have been misled by unscrupulous financial intermediaries. Note that the second implication gives rise to the bogus policy prescription of more disclosure and greater regulation of life settlement providers.

Policyowners should be given a little more credit. A policyowner simply might not want to keep all of his policies in force until death. Although a policyowner considers the welfare of his heirs when maximizing his own utility, *for certain estates already achieved*, a dollar increase in the value of the policyholder’s estate upon death does not enter into his utility with the same force as a dollar increase in a more liquid asset or a better performing policy while he is alive. Many policyowners who enter into a life settlement transaction own multiple policies. Hence, the policyholder rarely faces the all-or-nothing tradeoff implied in the Carriers’ Report between leaving one’s heirs nothing or leaving them everything. Like most decisions in economics, the real choice occurs at the *margin*—namely, would an extra dollar in life policy *A* generate more or less utility for the insured than an extra dollar in life policy *B* or a more liquid asset (which could be tapped in the event of an emergency while he is alive) conditional on having built up his estate to a certain level.

There are many other factors that would induce a policyowner to choose “sell” over hold until death. A policyowner might not be able to afford to keep a whole life policy in force before death—especially if his income stream unexpectedly declines or if the premiums increase or both. Or a policyowner might have a very high personal discount rate (as opposed to the assumed risk-free rate used in the Carriers’ Report), which causes him to steeply discount the payoff from the “hold” strategy. Indeed, the personal discount rate might be so high that the ratios shown in Exhibit 5 might be less than one for some policyowners even under the flawed framework of the Carriers’ Report.

The Carriers’ Report shows that someone with the narrow objective assigned by the authors—namely, maximize the value of one’s policy at the time of death—would always prefer “hold” to the “sell” or “surrender” options. But these preferences must not reflect the preferences of actual policyowners as revealed by their real world choices. At best, the model in the Carriers’ Report could be used to solve for the personal discount rate of someone who chose to sell his policy (at a certain price at a certain time) rather than hold it until death. But their model should not be used to set rules and regulations in the secondary market for life insurance.⁴⁸

47. In fact, in states that regulate life settlement transactions, a policyowner must be given a series of disclosures that inform him or her of the consequences of a life settlement transaction, and that inform him or her of the cash surrender and accelerated death benefit options.

48. According to Milliman USA, a leading actuarial consulting firm, nearly 88 percent of universal life policies issued in the United States ultimately do not terminate

B. The Target Market for a Life Settlement Transaction Is Restricted to Policyowners with Impaired Mortality

The Carriers' Report incorrectly suggests that a life settlement transaction, whose value is based on the economic value of a policy, is only possible when the policyowner experiences a negative shock to life expectancy: "Life settlement values are based on impaired mortality [of the policyowner] at settlement."⁴⁹ To the uninitiated reader, the IEV of a policy for the policyowner, which the author correctly describes on the very next page,⁵⁰ is the difference between the present discounted value of the face value of the policy and the present discounted value of future premiums. Although it is true that the IEV increases with impaired mortality, the IEV and hence the LSV (which is a function of the intrinsic economic value) can clearly be positive without impaired mortality. The IEV of a policy becomes positive very quickly into the life of the policy, and increases as the expected lifespan diminishes.

Indeed, the IEV exceeds the CSV even when normal health prevails: the incumbent insurer sets the cash surrender value below the economic value so that it earns a margin, however small, on policies that are allowed to lapse by healthy individuals. Hence, impaired mortality is not necessary, as the authors suggest, for the policyowner to earn economic value (and hence a LSV) from his policy.

Moreover, there are a variety of situations, unrelated to "impaired mortality," in which the policyowner can capitalize the economic value of his policy. Consider the following examples:

- The policyowner owns multiple life insurance policies and wishes to eliminate one.
- The beneficiary for whom the policy was originally purchased is now deceased or no longer has a need for the policy.
- A reduction in the value of the policyowner's estate reduces the tax liability for which the life insurance policy was designed to provide.
- The policyowner wishes to donate highly appreciated assets to charity, but would be faced with liquidity constraints as the result of such a donation.
- The policyowner can no longer afford to pay the premiums on the policy, and it is not feasible for him to keep the policy in force by using any program offered by the insurance carrier (such as borrowing the premium against the death benefit of the policy).⁵¹

with the payment of a death claim. By way of comparison, over 85 percent of term policies issued in the United States fail to result in a death claim. *See* Letter from Timothy C. Pfeifer, F.S.A., Milliman USA to Coventry First, Feb. 19, 2004, on file with authors [hereinafter *Milliman Letter*].

49. *Deloitte-UConn Presentation*, *supra* note 2, at 6. *See also Carriers' Report*, *supra* note 1, at 13 ("For senior citizens with *impaired health* who constitute the target market of the Life Settlements industry, an inappropriate decision could have severe, irreversible implications on the future estate needs of these policyholders.") (emphasis added).

50. *Deloitte-UConn Presentation*, *supra* note 2, at 7.

51. The authors ignore several secondary market transactions, including settlement with a paid up policy (SWAPP) and a purchase of a policy by a life settlement provider whereby the policyowner maintains a portion of the death benefit (with no future premium requirements) through an irrevocable beneficiary. *See* Secondary Markets SWAPP, available at <http://www.coventryfirst.com/secondary/swapp/swapp.asp>.

The many examples listed above detail situations, unrelated to impaired mortality, in which a policyowner, assessing the value of his asset, might wish to sell his life insurance policy at a price in excess of the surrender value. The secondary market for life insurance policies gives the policyowner the economic freedom to choose between a number of buyers and, in so doing, to receive the fair economic value for his policy. By failing to consider these scenarios, the authors do not properly account for the full consumer benefits of the secondary market for life insurance.

C. A Life Settlement Can Only Benefit a Policyowner with Either No Estate Needs or with No Other Sources of Liquidity

The Carriers' Report defines the target market for a life settlement as all policyowners who are greater than 65, have impaired mortality, and own policies with large face values.⁵² As we explain above, the author's definition of the target market is overly restrictive—a life settlement can be attractive to a policyowner without impaired mortality. Next, the authors define the set of potential beneficiaries of a life settlement transaction within the (overly restrictive) target market as any policyowner who (1) has no estate needs or (2) has an estate and liquidity needs but has no other source of liquidity.⁵³ With these two ill-defined sets of policyowners, the authors suggest incorrectly that the potential beneficiaries from a life settlement transaction represent a miniscule fraction of the target market for a life settlement transaction:

While it is difficult to estimate the subset of the Life Settlements market (i.e. greater than 65, impaired mortality, large face amount policies) that has no estate needs, *it is reasonable to assume* that it constitutes only a fraction of the potential \$100 billion market estimated by studies on the Life Settlements industry.⁵⁴

This “finding” is troubling for several reasons. First, for such a key finding in its study, one would expect the authors to provide citations in support of their assertion that groups (1) and (2) constitute “only a fraction” of the target market. The phrase “[i]t is reasonable to assume” leaves the reader wondering whether the authors have, in fact, seen the precise fraction of the target market but are refusing to report it.

Second, even if one were to accept the narrow objective of maximizing the value of one's policy upon death, the Carriers' Report is overly restrictive in defining the set of policyowners who could benefit from a life settlement transaction. Even under that artificial construct, there are other, highly representative groups of policyowners who could benefit from a life settlement transaction. For example, the authors incorrectly exclude beneficiaries who (3) have estate needs, liquidity needs, and another source of liquidity that is significantly less than the settlement value of their policy. They also exclude beneficiaries who (4) have estate needs that are small relative to the settlement

52. *Carriers' Report*, *supra* note 1, at 11.

53. *Id.* at 11.

54. *Id.* at 11 (emphasis added).

value of their policy. When these two excluded groups are added to the two groups of potential beneficiaries identified by the authors, the share of the life settlement industry that stands to benefit—even under the seriously flawed framework in the Carriers' Report—becomes much larger. Indeed, it is conceivable that the four groups of potential beneficiaries represent the vast majority of the target market for a life settlement transaction as defined by the authors.

Finally, when one properly rejects the assumption that policyowners are trying to maximize the value of the policy upon death, the set of potential beneficiaries from a life settlement transaction increases even further. Stated differently, when one assumes correctly that rational policyowners are trying to maximize their *utility* associated with various life insurance options, it becomes clear that the Carriers' Report is overly restrictive in defining the set of policyowners who could benefit from a life settlement transaction.

D. A Policyowner Cannot Recover the Lost Economic Value by Investing the Proceeds from the Life Settlement Transaction along with the Freed-Up Future Premiums in the Stock Market

The Carriers' Report uses a "finance theory approach" to compare the value of two strategies: (1) selling the life insurance contract and reinvesting the proceeds, or (2) retaining the contract and continuing to pay premiums until death at the end of five years.⁵⁵ The author uses a case study in which the face value of the policy is \$1 million, the IEV is \$693,000, and the LSV is equal to \$459,000. Using various returns on the settlement value and freed-up future premiums associated with selling the contract, the authors conclude that "[t]he results clearly indicate that for a policyowner with impaired health, the life insurance contract is the highest yielding asset that would maximize the policyholder's ending estate."⁵⁶ Interestingly, when the settlement value and freed-up premiums are allowed to appreciate at the historical return earned on small stocks, the authors admit that the present value of both strategies is nearly identical (\$855,000 versus \$834,000).⁵⁷ What the authors fail to acknowledge is that the policyowner cannot realize the larger payout until he dies. By contrast, the policyowner can spend \$459,000 today by selling the policy. Because the proper objective of the policyowner is to maximize his utility, it is not hard to understand why so many policyowners are opting for settlement.

E. Life Settlement Values Are Determined Solely by the Life Settlement Provider

The Carriers' Report also incorrectly asserts that LSVs are "set by the Life Settlement company."⁵⁸ This assertion presumes that a monopoly provider of a life settlement dictates settlement terms for all policyowners, and all policyowners abide by those terms. In reality, multiple life settlement providers compete for a given policy, which drives the settlement rate above the cash surrender value and toward the economic value of the policy. If a single firm

55. *Carriers' Report*, *supra* note 1, at 6.

56. *Id.* at 6.

57. *Id.* at Exhibit 7.

58. *Deloitte-UConn Presentation*, *supra* note 2, at 6. *See also Carriers' Report*, *supra* note 1, at Exhibit 2.

monopolized the purchases of policies in the secondary market, then all settlements would amount to one penny above the cash surrender value. But as one of the authors demonstrated in an earlier work, the average settlement value is between three and four times the average cash surrender value for all policies sold in the intensely competitive secondary market.⁵⁹

With perfect competition in the secondary market, the policyowner extracts 100 percent of the economic value of the policy, and the winning life settlement provider earns zero returns. Indeed, policyowners might be paid more than the actuarial value of the policy whenever the winning firm bids too aggressively, which is a frequent result in common-value auctions known as the “winner’s curse.” Given the low entry costs in the life settlement industry, it is the policyowners—not the life settlement providers—that dictate the terms of the settlement. Hence, it is unreasonable to suggest, as the study’s authors do here, that LSVs are determined by the life settlement providers.

F. A Policyowner Cannot Capture the Full Economic Value of His Policy Because Cash Flows Are Discounted by the Life Settlement Provider at Its Hurdle Rate and Not at the Risk-Free Interest Rate

The Carriers’ Report next argues incorrectly that a policyowner cannot capture the “intrinsic value” of the policy because life settlement providers use their “hurdle rates” to discount future cash flows for the purpose of valuation.⁶⁰ The study argues that proper discounting should be based on the risk-free interest rate.⁶¹ This concern is misplaced for several reasons. First, a rational economic agent discounts future cash flows according to his personal discount rate, which depending on his personal time value of money, may be higher or lower than the risk-free rate. For example, a very impatient person, or a person who did not expect to live much longer might have a higher discount rate than the risk-free interest rate. Hence, it is not reasonable, as the study’s authors suggest, to use the risk-free interest rate to calculate the economic value of a policy from the perspective of the individual policyowner.

Second, a life settlement provider’s hurdle rate, which is a function of the firm’s weighted average cost of capital, could be less than the policyowner’s personal discount rate. In those cases, the life settlement provider would value the policy more than the policyowner, thereby creating the possibility for gains in trade.

Third, even when the life settlement provider’s hurdle rate exceeds the policyowner’s discount rate, the price offered by the life settlement provider is always an improvement over the offer from the incumbent carrier—that is, the LSV always exceeds the CSV. So it is a bit curious that the study’s authors would be concerned about the fraction of the economic value retained by the policyowner in the settlement. If the authors were really concerned about maximizing the policyowner’s share, then they should encourage vigorous

59. *Secondary Market Benefits*, *supra* note 4, at 473 tbl. 2.

60. *Deloitte-UConn Presentation*, *supra* note 2, at 8; *see also Carriers’ Report*, *supra* note 1, at Exhibit 3.

61. *Deloitte-UConn Presentation*, *supra* note 2, at 8.

competition among life settlement providers and the incumbent carrier, which would result in a LSV approximately equal to the economic value of the policy.

G. Large Transaction Costs and Profits of Life Settlement Providers Are Causing Policyowners to Lose Economic Value Whenever They Engage in a Life Settlement

The authors report sales expenses as a fraction of gross proceeds for a single year of a *single* life settlement provider (the 2002 Annual Report of AmeriFirst Fund I LLC—a firm that never went into business) to suggest incorrectly that all life settlement providers are consuming a disproportionate share of the difference between the economic value and the cash surrender value.⁶² They estimate that the total transaction expenses associated with a life settlement transaction is equal to 40 percent of the asset sale price,⁶³ which exceeds that ratio for other asset transactions. Their concern that policyowners get their fair share of their economic values is well grounded, but their attention on transaction costs in life settlement is misplaced for several reasons.

First, the ratio of sales expenses to gross proceeds for a single life settlement provider likely does not reflect the average ratio for all life settlement providers. Hence, their premise that life settlement providers incur large sales expenses is not true. Firms in all industries incur some sales expenses. The competitive process can force inefficient firms out of business, but the invisible hand cannot be expected to reduce sales expenses to zero.

Second, the purportedly large sales expenses for a life settlement transaction do not prevent life settlement providers from increasing the welfare of policyowners. Although it is true that inefficient firms cannot offer the same rewards to a policyowner as their more efficient rivals, it is the efficient firms that dictate prices of settlements, and thereby compensate policyowners for a greater share of the economic value of their policies.

The study's authors next argue that the lost economic value to a policyowner "equals the sum of transaction costs plus profits" earned by life settlement providers.⁶⁴ It is not surprising that a mathematician (as opposed to an economist) would fail to properly measure the change in consumer welfare owing to a life settlement transaction. To properly measure that change, one must first posit a but-for world in which the activity in question—namely, the life settlement transaction—cannot occur. But the study's authors skip this important step, and define the loss in consumer welfare as:

... the loss in value by selling [the] life insurance contract in the secondary market versus retaining the policy. ... [It equals] the difference between the Intrinsic Economic Value and the Life Settlement Value for an impaired policyholder.⁶⁵

62. *Id.* at 10. *See also Carriers' Report, supra* note 1, at 2 ("Further research into the LEV generated from a Life Settlements sale shows that it arises from the high transaction costs involved in the sale.").

63. *Deloitte-UConn Presentation, supra* note 2, at 15.

64. *Id.* at 12.

65. *Id.* at 12.

The “but-for” world posited by the study’s authors does not exist, as nearly 90 percent of all universal life policies are allowed to lapse.⁶⁶ The authors fail to understand that, by allowing their policies to lapse at steeply discounted terms, these policyowners are revealing that the cash surrender value exceeds the present discounted value of their expected payoff associated with retaining their policies until their deaths. Hence, the proper benchmark, or but-for world, is the payoff to the policyowner when they allow their policies to lapse at steeply discounted terms with the incumbent insurance carrier—namely, the cash surrender value. Because the LSV typically exceeds that payoff, the life settlement represents an *increase* in consumer welfare relative to a properly specified but-for world.

With this critique in mind, it is almost senseless to follow through the study’s calculations of lost value. The Carriers’ Report estimates that policyowners with life expectancies in excess of 24 months who entered into a settlement with a viatical company licensed in New York (and whose transactions were thus recorded by the New York Department of Insurance) lost \$98.5 million in value during the four-year period from 2000 through 2003 (equal to \$143.2 million in the alleged IEV of all policies sold less \$44.7 million in LSV) or \$24.6 million annually.⁶⁷ It bears emphasis that because the New York Department of Insurance regulates settlements involving policyowners with a catastrophic or life-threatening illness only,⁶⁸ the Department’s database includes life settlement transactions—that is, sales of policies in which the policyowner has a life expectancy in excess of two years—as a result of the reporting firm *coincidentally* conducting settlements for catastrophic or life-threatening illness. Hence, life settlement transactions performed by firms that focus on policyowners without catastrophic or life-threatening illnesses would not appear in the New York Department of Insurance’s database. As a result, the Carriers’ Report relies on a criterion that filters out the majority of relevant data.

Setting aside this potential for bias, the study severely understates the amount offered to policyowners by life settlement providers in 2002. It is not correct to compare the \$44.7 million paid in life settlement transactions with the alleged

66. See *Milliman Letter*, *supra* note 48.

67. *Carriers’ Report*, *supra* note 1, at 7-9, exh. 9 (“In order to distinguish Life Settlements data from Viatical data, we ignored all policy data that have an assumed life expectancy of less than 24 months.”).

68. State of New York Insurance Department, *Informal Opinion Re: Life Settlements, Licensing Requirements*, March 1, 2002, available at <http://www.ins.state.ny.us/rg203011.htm> (concluding that a life settlement provider would have to be licensed in New York, and therefore compelled to provide its transaction data to the agency, only if any of the policies that it purchased from a New York resident were from a viator, which it defines as “the owner of a life insurance policy insuring the life of a person who has a catastrophic or life threatening illness or condition.”). Hence, if none of the policies that a life settlement provider purchased in New York were from policy owners who had a catastrophic or life threatening illness, then the life settlement provider would not have to be licensed in New York. Note that the New York Department of Insurance’s definition is more restrictive than that of the NAIC Model Act, which explains that “a viator shall not be limited to an owner of a life insurance policy or a certificate holder under a group policy insuring the life of an individual with a terminal or chronic illness or condition except where specifically addressed.” *NAIC Model Act*, *supra* note 24, § 2 (Definitions).

\$143.2 million in IEV of those policies. A more meaningful welfare analysis would compare the life settlement payout of \$44.7 million to the amount that would have been paid by the incumbent insurer in a surrender but for the intervention by the life settlement provider. *The Carriers' Report assumes incorrectly that, but for these life settlement transactions, 100 percent of the policies in the New York Insurance Department's database would have kept their policies in force until death.* A more reasonable assumption is that 100 percent of those policies would have been surrendered to the issuing carrier. Because nearly 90 percent of *all* life policies issued ultimately do not terminate with the payment of a death claim—that is, the unconditional expected lapse rate is 90 percent—it is reasonable to assume that a much higher percentage (like 100 percent) would not terminate in a death claim *conditional on observing the policyowner selling his policy to a life settlement provider.*

Using a multiple of life settlement values to cash surrender values of 2.5 (which is significantly below the multiple of 3.8 that Coventry First paid during that time period but squarely within the range of values presented in Exhibit 4 of the Carriers' Report for issue age of 55 years and attained age of 65), we estimate that the cash surrender value associated with those policies would have been worth just \$17.9 million (equal to \$44.7 divided by 2.5), which implies that life settlement transactions *increased* consumer welfare by \$26.8 million in the report's example (equal to \$44.7 million less \$17.9 million). The study's subsequent exercise of allocating the "lost economic value" to the life settlement provider's profits, selling commissions, taxes, and brokerage fees does not merit a rebuttal.⁶⁹ Despite the allegedly extraordinary waste that exists in the life settlement industry, those firms somehow manage to increase the welfare of policyowners vis-à-vis the cash surrender values offered by the incumbent insurance carriers.

H. A Survey of Life Settlement Provider Websites Reveals That Life Settlement Providers Promote Their Own Interests over the Interest of Policyowners

In the course of their research, the authors of the Carriers' Report surveyed 27 websites of life settlement providers to study their marketing activities. The authors found that only one (3.7 percent) of all websites mentioned the option of retaining the life insurance contract, and less than 20 percent offered options other than life settlement.⁷⁰ Based on this very small survey of unnamed life settlement providers, the study's authors incorrectly suggest that these firms promote their own interests over the interests of policyowners. But this conclusion cannot be farther from the truth. It should not surprise one to discover that a cable television network does not actively promote book reading (a substitute to watching television). Nor should it surprise one to discover that same network does not actively promote satellite television (a substitute to watch television via cable). It does not follow that cable television firms reduce consumer welfare. Similarly, it is not surprising to learn that life settlement providers do not promote the status quo (holding one's policy) over a life

69. *Carriers' Report*, *supra* note 1, at Exhibit 108.

70. *Id.* at 17-18; see also *Carriers' Report*, *supra* note 1, at 10 ("Only one company mentioned the option of retaining a life insurance contract as a viable alternative to a Life Settlements sale when a policyholder has impaired mortality.").

settlement transaction, or do not encourage policyowners to raise cash through other means (such as the sale of one's home). And neither do the incumbent life insurance carriers.⁷¹ By pursuing a fraction of the arbitrage opportunity (equal to the difference between the economic value and the cash surrender value), however, the life settlement provider creates value for the policyowner that would not otherwise exist. Hence, as the founder of economics pointed out some 229 years ago,⁷² the pursuit of profits by life settlement providers, as is the case with most firms in the economy, inadvertently generates benefits for consumers. Contrary to what the study's authors suggest, the interests of the policyowners and life settlement providers largely overlap.

IV. THE REPORT'S POLICY RECOMMENDATIONS WOULD NOT BE FEASIBLE AND WOULD NOT PROMOTE THE INTERESTS OF POLICYOWNERS

The Carriers' Report concludes by prescribing greater regulation of life settlement providers. In particular, the authors would require life settlement providers to disclose all outside options to policyowners before consummating a sale, including surrendering the contract to the life insurance company (at presumably a lower price than the life settlement offer) and retaining the contract until death (which the policyowner presumably already understood when he purchased the policy).⁷³ But the first disclosure requirement would reduce welfare if followed by the policyowner, and the second disclosure requirement would generate superfluous knowledge.

In addition, the authors call for the mandatory disclosure of the economic value of the contract and the "lost economic value created by selling or surrendering the contract."⁷⁴ But a review of several surrender disclosure forms reveals that carriers are not willing to divulge information upon a surrender request that would assist an insured in making a fully informed decision. For example, among the scant detail provided in its surrender disclosure form, Manulife Financial does not provide the "lost economic value" created by surrendering the contract in its two-page surrender form.⁷⁵ Nor does it inform the policyowner of the option to sell his or her policy in the secondary market. Instead, Manulife requires the insured to provide data for (and thus consider) the following options: (1) whether the insured intends to use any of the funds as

71. Moreover, in most states that regulate life settlement transactions, life settlement providers are required to inform policy owners about their surrender and accelerated death benefit options, whereas policy owners considering surrender are not required to be told about the settlement option.

72. ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS, Book IV Chapter II (Methuen and Co., Ltd., 5th ed. 1904) ("Every individual...generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.")

73. *Carriers' Report*, *supra* note 1, at 23.

74. *Id.* at 23.

75. Manulife Financial, Policy Service Request Form, Jan. 2002.

premium on a new policy, (2) whether the insured seeks to borrow money against the policy, to make a full or partial withdrawal, or to surrender the policy. Because it is required by federal law, Manulife notifies the insured that it withholds the federal income tax on the taxable portion of the payments Manulife makes to the policyowner. Similarly, the surrender disclosure forms for Southwestern Life, Midland National, or AIG Life Companies fail to inform the insured about his or her outside options, including selling the policy in the secondary market. It is hypocritical for incumbent carriers to demand greater disclosure on the part of life settlement providers when the carriers themselves do not provide the same kind of information to insureds during a surrender. To understand why not, just ask the following question: How many policyowners would allow their policies to lapse if they were informed during the surrender of the greater value they could realize from their policies in the secondary market?

Practical problems plague the Carrier's Report request for greater disclosure. Because the authors' measure of "lost economic value" is a meaningless concept, it does not make sense to require life settlement providers to calculate that figure for potential clients. As explained in Part II, the recommendation that the NAIC require life settlement companies to calculate and disclose the IEV to policyowners before a life settlement would require those companies to conduct new analyses of values that are impossible to calculate on an individual basis and that are not currently done as part of their pricing methodologies. Indeed, if the life settlement provider were forced to give 100 percent of the economic value to the policyowner, the life settlement provider would have no incentive to inform the policyowner that the economic value of the policy exceeded the cash surrender value. Stated differently, the life settlement provider must be rewarded for creating this information for the policyowner.

Finally, the authors suggest that an amended "model regulation" should require that life settlement agents be trained in the areas of "Impact of Life Settlement sale on policyholder's estate requirements," "Suitability of Life Settlement sale for impaired policyholders with estate needs," and "Replacement rules if Life Settlement proceeds are used to purchase another policy."⁷⁶ They conclude that these requirements "will ensure that a Life Settlements broker provides suitable advice to the policyholder, and that the policyholder is capable of making an informed decision to retain or sell her life insurance contract."⁷⁷ But a life settlement provider cannot profit from the purchase of a policy in the secondary market unless the transaction creates a large surplus for the insured. Hence, there are no conflicts of interests in a life settlement. Because the life settlement provider's incentives are closely aligned with those of the insured, it is not necessary to impose additional requirements on settlement providers or their brokers to achieve socially optimal outcomes. In contrast to a stock broker, where such requirements might be necessary, a settlement broker lacks the incentive to churn an insured's assets (there can only be one settlement for a given policy) or to steer an insured's purchases toward a preferred asset type (the insured is selling one type of asset only).⁷⁸

76. *Carriers' Report*, *supra* note 1, at 23.

77. *Id.* at 11.

78. *See, e.g.*, In the Matter of Olde Discount Corp., S.E.C. Release No. 40423, 1998 SEC LEXIS 1914; 53 S.E.C. 803, Sept. 10, 1998 (finding that Olde policies included a

Such calls for greater training are no different from the raising-rivals'-cost strategy employed by the incumbent insurance carriers in state regulatory proceedings. For example, in Kentucky, incumbent insurance carriers introduced regulations in 2001, which have subsequently been abandoned, mandating that a life insurance agent must complete an approved 40 hour "prelicensing classroom course of study," apply for and obtain a separate license from the state, and pay a fee of \$250 before he is allowed to broker a life settlement with a client for whom such a settlement might be the best option.⁷⁹ Although sensible licensing requirements help to eliminate fraudulent life settlement and initial life insurance transactions, licensing requirements such as those passed in Kentucky eliminate nearly all life settlement transactions and their associated benefits for policyowners.

Calls for disclosure by life settlement providers of an incalculable value (IEV) are likely motivated by protection of economic rents. For example, in its May 2005 earnings announcement, Lincoln National Corp. listed the disruptive influence of life settlement providers as one of several major contributors to variability in its earnings:

The effect of life settlement business on persistency assumptions used in pricing life insurance business, which may cause profitability of some business to fall below expectations and could potentially result in deficient reserves.⁸⁰

Clearly, the incumbent carriers have a strong financial interest in retarding the growth of the life settlement industry.

If the study's authors were truly interested in promoting the interests of policyowners, then they should encourage competition among life settlement providers and incumbent carriers for policyowners in the secondary market for life insurance. Unrestrained competition among bidders in the secondary market, which requires the removal and not the erection of barriers to entry, would ensure that policyowners keep the largest possible share of the economic value of their policies—the insurance lobby's purported goal—that is consistent with inducing life settlement providers to educate their prospective clients.

CONCLUSION

Among other serious flaws, the Carriers' Report incorrectly suggests that policyowners in New York were exploited by life settlement providers to the tune of nearly \$100 million across four years. These results are not reliable for several reasons. First, the Carriers' Report relies on a biased sample of transactions in which the policyowner had a life expectancy in excess of 24 months among viatical companies in New York. This sample represents the authors' best attempt to capture the "life settlement segment" of the viatical industry. Because a firm

compensation system that provided substantially higher payouts for transactions in stocks recommended by Olde, which created a conflict of interest with Olde customers).

79. Viatical Settlement Broker License Code, 806 KAR 9:310 (Ky. 2001), available at <http://www.lrc.state.ky.us/kar/806/009/310.htm>.

80. *Lincoln Financial Group Reports First Quarter 2005 Earnings*, BUS. WIRE, May 2, 2005.

that is licensed as a viatical company generally does not target the same set of customers as a life settlement provider, it is not appropriate to use any financial ratios of viatical settlement companies as a proxy for the financial ratios of life settlement providers—even the ratios from viatical transactions that share some characteristics of life settlements.

Second, comparison of LSV values to IEVs is flawed because one must assume that, contrary to historical data on lapse rates, 100 percent of the policies in the New York Department of Insurance database would have been held until death but for the settlement transaction. Assuming more realistically that 100 percent of those policies would have been surrendered to the issuing carrier but for the life settlement transaction, we demonstrate that these transactions *increased* consumer welfare in New York. Extrapolating from these results, it is reasonable to conclude that life settlement transactions increased consumer welfare throughout the United States.

We consider and reject the authors' calls for greater disclosure by life settlement providers. It is impossible to produce individual IEVs for insureds who are considering the sale of their policy. And it is a bit hypocritical that the incumbent carriers do not disclose to policyowners their option to sell to a third party at a higher price at the time of surrender. If the authors were really concerned about maximizing the policyowners' welfare, then they should encourage vigorous competition among life settlement providers and the incumbent carrier in the secondary market, which would result in a life settlement value approximately equal to the economic value of the policy.

IV. ABOUT THE AUTHORS

A. Hal J. Singer

Hal J. Singer is co-founder and President of Criterion Economics. His areas of expertise are antitrust, auction design and strategy, damages, environmental economics, insurance, spectrum policy, telecommunications and the Internet, and transportation. With Professor Neil Doherty of the Wharton School, Dr. Singer wrote the seminal articles on the secondary market for life insurance, which were published in the *Journal of Insurance Regulation*, *Real Property, Probate and Trusts Journal*, and *Marquette Elder's Advisor*.

He is the co-author of the book *Broadband in Europe: How Brussels Can Wire the Information Society* (Kluwer/Springer Press 2005), with Dan Mالدوم, Richard Marsden, and J. Gregory Sidak. He also has published a book chapter in *Access Pricing: Theory, Practice and Empirical Evidence* (Justus Haucap & Ralf Dewenter eds., Elsevier Press 2005).

In addition to his work on the secondary market for life insurance, Dr. Singer has published scholarly articles in several economics and legal journals, including *American Economic Review Papers and Proceedings*, *Berkeley Technology Law Review*, *Canadian Journal of Law and Technology*, *Hastings Law Journal*, *Federal Communications Law Journal*, *Journal of Business and Finance*, *Journal of Industrial Economics*, *Journal of Network Industries*,

Journal of Regulatory Economics, Regulation, Topics in Economics Analysis and Policy, and Yale Journal on Regulation.

In regulatory proceedings, Dr. Singer has presented economic testimony to the Federal Communications Commission, the Federal Trade Commission, and the Antitrust Division of the Department of Justice. Dr. Singer has served as a testifying expert in several litigation matters. He prepared an expert report that was submitted by Allegheny Communications as part of a petition for review of an agency action in the United States Court of Appeals for the District of Columbia Circuit. He also prepared an expert report on behalf of a parcel delivery company that was submitted in the United States District Court Southern District of New York. He prepared an expert report on behalf of an Indian tribe that estimated the external costs imposed by a major railroad on the reservation that was submitted in the United States District Court of Montana. He has written several white papers for corporate clients, including 1-800 CONTACTS, BellSouth, Coventry First, Harvest Partners, Qwest, SBC, and Verizon.

Before joining Criterion, Dr. Singer worked at an internationally recognized consulting firm. In addition, he has worked as an economist for the Securities and Exchange Commission and the Army Corps of Engineers, and he has taught microeconomics and international trade at the undergraduate level.

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Eric Stallard is a Research Professor and Associate Director of the Center for Demographic Studies at Duke University. Professor Stallard is a Fellow of the Conference of Consulting Actuaries, Member of the American Academy of Actuaries, and Associate of the Society of Actuaries.

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Professor Stallard has served on the Society of Actuaries' Long-Term Care Insurance Section Council and on the Society's Work Group on Factors Affecting Retirement Mortality.

Professor Stallard is currently serving as Project Leader, Core Leader, or Senior Investigator on research projects from the U.S. National Institutes of Health/National Institute on Aging covering the areas of health, disability, LTC, and mortality. In addition, he is serving as Principal Investigator on LTC research grants from the Veterans Health Administration and from the National Council on the Aging. He has also served as Principal Investigator on LTC research grants from the Society of Actuaries, the Bayer Corporation, General Electric Capital Assurance Co., and Wyeth Pharmaceuticals.

Professor Stallard's research expertise includes modeling and forecasting for medical demography and health/LTC actuarial practice. Professor Stallard was a 1996 winner of the National Institute on Aging James A. Shannon Director's Award for his research proposal *Forecasting Models for Acute and Long-Term Care*. In 1999, the Society of Actuaries awarded him first prize for his paper

Retirement and health: Estimates and projections of acute and long-term care needs and expenditures of the U.S. elderly population, presented at the Retirement Needs Framework Conference. The paper was included in the conference monograph published by the Society of Actuaries in January 2000. Professor Stallard's 1984 book, *Recent Trends in Mortality Analysis*, published by Academic Press, provided in-depth and comprehensive models for the analysis of underlying and multiple cause mortality data. His newest book, *Forecasting Product Liability Claims: Epidemiology and Modeling in the Manville Asbestos Case*, published in 2004 by Springer-Verlag, covers the full range of epidemiological, demographic, and actuarial issues in asbestos-related disease and mortality. His four other books and monographs and 100 scientific articles span a broad range of topics in medical demography and health actuarial practice.

Professor Stallard has presented research findings at numerous scientific and professional meetings, and has been featured in national and local television, radio, and print media.

Professor Stallard earned a B.S. in Psychology from Duke University. Following that, he completed the education and examination program of the Society of Actuaries where he was enrolled as an A.S.A. Following that, he met the education and experience requirements of the American Academy of Actuaries where he was enrolled as an M.A.A.A., and of the Conference of Consulting Actuaries where he was enrolled as an F.C.A. He meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.