CASH VALUE VS. DEATH BENEFIT IN LIFE INSURANCE

BY ROBERT P. MURPHY

In his classic work *Becoming Your Own Banker,* Nelson Nash claims that the standard approach to life insurance has things backwards. Consumers have been taught to get their desired death benefit for as little outlay as possible. Yet Nash argues that people's need for *finance* while alive is more urgent than their need for a benefit check when dead. In this context, then, Nash concludes that a consumer should buy a life insurance policy that maximizes premium payments and *minimizes* the (initial) death benefit. In this article I'll explain this seemingly counterintuitive approach, because it underlies Nash's Infinite Banking Concept (IBC).

THE CONVENTIONAL APPROACH TO LIFE INSURANCE

Typically, an insurance agent will size up a potential client (let's assume he's a man) and estimate his "human life value"—how much he is worth alive, rather than dead. In this respect, the client is appraised from the point of view of his survivors; his income-generating capacity is obviously relevant, but so too is the sentimental value he provides in his role as husband and father (supposing he is married with children). Once the agent has come up with a ballpark estimate of the client's human life value, this is the amount of death benefit for which the man should be underwritten, if he wants to be "fully insured." After all, most people wouldn't take out merely a $100,000 fire insurance policy on a house that would cost $300,000 to replace; they would want to *fully* insure their home. By the same token, if it would take $800,000 to "replace" the economic support the man offers his family, then the life insurance agent will insist the man get a policy with this amount of death benefit coverage.

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Incidentally, to say that the death benefit "replaces" the man obviously doesn't mean in a full *literal* sense. Yet this is no different from the case of fire insurance: If your house burns down and you lose family photos and other items of sentimental value, the check from the fire insurance company won't fully indemnify you in this case, either. Nonetheless, there is definitely a sense in which you can "fully insure" the "value" of your home with a fire insurance policy of appropriate size. By the same token, we can meaningfully speak of "human life value" while recognizing that money can't buy everything.

Once the client agrees on how much death benefit he wants to purchase, the next step—in the typical process—is to find the *cheapest* way to obtain such coverage. In other words, the client wants to obtain the desired death benefit with the smallest possible out-of-pocket contributions in the form of premium.

So far as it goes, there is nothing wrong with the above, typical approach to life insurance. Human life value *is* an incredibly important concept, and responsible individuals—especially if they are the breadwinners in a marriage and *extra* especially if they have young children—should obtain adequate death benefit coverage immediately, to the extent that others are relying upon their earning capacity. Furthermore, *given* that you are going to lock in a certain amount of death benefit coverage, you obviously will want to do so on good terms, without "overpaying" for it.

NELSON NASH FLIPS THE CONVENTIONAL WISDOM

Yet ironically, Nelson Nash's IBC flips the above priorities. IBC is implemented through life insurance—specifically, dividend-paying whole life insurance. Yet it focuses on the so-called *living benefits* of whole life, rather than the death benefit. Nash focuses on the "banking" qualities of a whole life insurance policy; these are what allow you to "become your own banker."

Not all insurance policies are created equal. Even if we consider just a whole life insurance policy, and even if we set the out-of-pocket cash flows at a given schedule (with specified dollar contributions in various years, throughout the life of the policy), there are still different ways of *structuring* the whole life policy. Depending on how the policy is designed, the policy can either

start with a high death benefit and low cash value, which then grows slowly. Or, on the other end of the spectrum, the policy can start with a low death benefit and a high cash value, which grows quickly over time. To repeat, you can achieve these different outcomes— or anything in between—with the *same* out-of-pocket cashflow from the owner into the policy over the years.

If a client wants an insurance policy that takes full advantage of the "living benefits," then the policy should be designed in such a way that the cash value growth is maximized. The necessary downside of this construction is that the death benefit won't be as high as it otherwise would have been, with a policy requiring the same cashflow but enjoying lower cash value growth.

The reason such "Nelson Nash policies" or "IBC policies" favor cash growth—at the expense of (initial) death benefit—is that the size of the *policy loan* the company will offer, is limited by the cash value of the policy at that point.

Since the whole rationale of IBC is to "borrow from yourself" (by taking out policy loans tied to the whole life policy), rather than borrowing from outside lenders, the constraint on implementing IBC is always the total available cash value in the whole life policy (or policies) that the individual owns.

Death Benefit Still Important, and Useful in IBC

I should stress just to avoid any confusion: Someone who implements IBC must not jeopardize the death benefit necessary to provide conventional protection for his or her dependents. In other words, just because a "Nelson Nash policy" minimizes the death benefit,

doesn't mean that the death benefit is irrelevant.

In particular, many younger people who start out with a modest IBC-structured policy will *also* carry (say) a 20- or 30-year term life insurance policy. This is because if the person happens to die only a few years into the IBC process, he or she may not have accumulated enough death benefit to replace the human life value.

However, someone who implements IBC aggressively will eventually find that the death benefit becomes quite significant, replacing the term policy when it expires. The well-funded whole life policy can then provide excellent flexibility for retirement (or what Nash prefers to call "passive income") and it opens up options for estate planning because the death benefit check(s) pass income tax-free to the named beneficiaries.

The PUA Rider

The specific mechanism by which a policy can tilt toward cash value accumulation vs. (initial) death benefit is the Paid Up Additions (PUA) rider. The PUA rider is appended to a base policy, allowing the owner to make separate contributions above and beyond the contractual premium necessary to keep the base policy in force.

When the owner makes a PUA contribution, technically what's happening is that he buys a "mini" policy that is fully "paid up" (hence the name). When a life insurance policy is "paid up," it means that the owner doesn't have to put in any more money; the life insurance company is now on the hook to send the death benefit check when the insured dies (or when he reaches the age of maturity, such as 121 years).

A Simple Numerical Example

To understand how a PUA changes things, let's first walk through the logic of a base policy *without* a PUA rider. Suppose a 25-year-old woman has taken out a whole life insurance policy with a premium of $5,000 per year, and for which the contract requires premium payments throughout the entire life of the policy. In the early years, the cash value associated with the policy will rise year after year (with the $5,000 payments of the base premium), but the increase will be sluggish. However, if the woman is in decent health, she will get a nice death benefit corresponding to this outlay of annual premiums.

The reason for this pattern—an initially high death benefit but sluggish growth of cash value—is that the woman probably won't die for many years; remember, she's in good health and is opening the policy at age 25. Contractually, the young woman is on the hook for plugging in $5,000 each year she sticks around. Actuarially speaking, the insurance company expects that by the time it will have to send a death benefit check to her beneficiary, it will have received *many* payments of $5,000 from her, which will all have been rolling over earning returns from their respective moments of receipt. This is why the insurance company is willing to agree to offer a sizable death benefit (from the moment the contract starts) in exchange for her promise to send annual $5,000 payments as long as she stays alive.

Now let's think about the cash value. First of all, how is it calculated? The textbook formula says that the cash value is the actuarially expected, present discounted value of the future death benefit to be paid, minus the flow of remaining premium payments. In plainer language, the cash value is the "spot lump sum value right now" of the big death benefit payment that will come at an uncertain time, minus the "spot lump sum value right now" of the smaller premium payments that will last for an uncertain length of time.

As time passes and the woman faithfully makes her premium payments, the cash value grows. This makes sense, according to the formula we just described: With each passing year, the (uncertain) payment of the death benefit gets closer, and so its present value *increases*. In addition, the (uncertain) number of remaining

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premium payments to the company goes down by one, and the entire schedule of payments is shifted closer by one year, thus *decreasing* their present value. The first number gets bigger, while the second number gets smaller. The cash value is the first number minus the second number, so obviously each passing year makes the cash value go up.

Now here's the subtle but crucial point: Early on, when the woman is still in her late 20s say, these two effects exist but they're not very potent. To see the role played by the PUA, though, we just need to focus on why the *second* effect (concerning the stream of remaining premium payments) is not potent, early on. I'm going to simplify things a bit to make the math easier, but it will get the point across well enough, to simply assume that the woman will die *for sure* at age 80. That means that when she first opened

the policy at age 25, the company expected it would get 55 annual installments of the $5,000 premium.

But now the woman gets through the first year; she pays her first premium and lives to see age 26. What happens to the present value of the expected string of remaining premium payments? Instead of having 55 looming payments, the company now expects it will receive only 54. The difference in the *present value* of those streams however is *much lower* than $5,000, because what's "falling out" is the very-distant $5,000 payment that was 55 years in the future (and which is now only 54 years away).

For those who are comfortable with calculations, the two different valuations are performed the following way, where r is the interest rate used to turn future dollars into present dollars:

Table 1. Why Cash Value Grows Slowly, Early On

When Woman Is…	Present Value of Remaining Premium Payments If Assume Death Occurs at Age 80
Age 25	$5,000/(1+r) + $5,000/(1+r)^2 + … + $5,000/(1+r)^{54} + $5,000/(1+r)^{55}$
Age 26	$5,000/(1+r) + $5,000/(1+r)^2 + … + $5,000/(1+r)^{54}$

Notice in Table 1 that the two streams of remaining premium payments are identical, *except* for the last term in the top row: $5,000/(1+r)^{55}$. Bear with me; we'll soon see why this ends up being important to understanding the PUA.

To repeat, early in the base whole life policy, the passage of years doesn't make the cash value jump very much, even though the woman is paying the contractual base premium of $5,000. The contribution to the cash value coming from the *reduction* in the spot value of the remaining premium payments is very weak, early on, because the terms that are "dropping out" of the formula are heavily discounted. With our specific example, if the interest rate r is 5 percent, then the spot value of the remaining premium payments only drops by $5,000/(1.05)^{55} \approx 342.

To be clear, this $342 is not the only thing contributing to an increase in the cash value; we also have to account for the fact that the death benefit is one year closer. (Note also that we are totally ignoring the overhead costs—including agent commission—that in the real world will affect the cash value an owner is promised in the actual contract. Here we're keeping things as simple as possible by just looking at a few textbook issues.) But it is the valuations of the remaining premium payments that matter so much for the PUA rider, which is why we're focusing just on this one component of the cash value formula.

Now that we've seen what happens early in the policy, let's zoom to the end, right before the woman is expected to die:

Table 2. Why Cash Value Grows Faster, Later In the Policy

When Woman Is…	Present Value of Remaining Premium Payments If Assume Death Occurs at Age 80
Age 78	$5,000/(1+r) + $5,000/(1+r)^2$
Age 79	$5,000/(1+r)$

RATHER THAN HER $5,000 PAYMENTS EACH YEAR BEING PART OF A LONG STRING OF CONTRACTUALLY NECESSARY PREMIUM PAYMENTS, SUPPOSE INSTEAD EACH PAYMENT BUYS A SELF-CONTAINED, FULLY FUNDED, "MINI" POLICY.
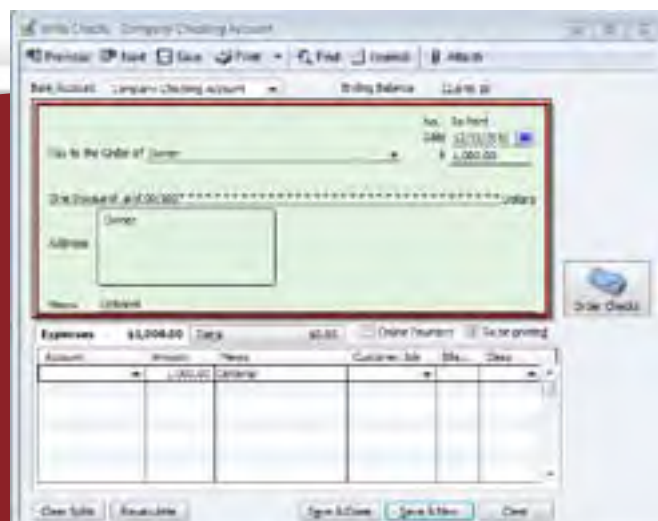
At this point, there are far fewer premium payments left (in an actuarially expected sense, which for simplicity we are here representing by the assumption that she dies at age 80 for sure). When the woman is 78, and then makes another premium payment to carry her to age 79, the term that "drops out" is now only discounted by two years, not 55 years as was the case when she first opened the policy at age 25.

With the same interest rate of 5 percent, the change in the two streams in Table 2 is $5,000/(1.05)^2 \approx \$4,535$, which is about thirteen times greater than occurred in Table 1. What this illustrates is that as the woman goes from age 78 to age 79, the increase in the cash value *due to the fact that one of the premium payments has "dropped out"* is $4,535, whereas when she went from age 25 to age 26, the "dropping out" of that last premium payment only made her cash value go up by $342.

BACK TO THE PUA RIDER

We demonstrated in the previous section that if a woman aged 25 were willing to commit to a *lifetime* stream of $5,000 annual premium payments, then she would get a large death benefit, but the cash value would rise very slowly early on in the policy, and would only pick up steam years later.

In contrast, suppose instead she makes "one-off" arrangements each year with the insurance company, where she gives them $5,000 for a fully paid-up policy. In other words, rather than her $5,000 payments each year being part of a long string of contractually necessary premium payments, suppose instead each payment buys a self-contained, fully funded, "mini" policy.

There are two main implications of this new approach. First, the death benefit associated with each "mini" policy will be much lower than what the insurance company promised for the base policy. This is because with the fully funded mini policies, the woman *is not on the hook to give any more money*. (That's why the mini policies are "paid up.") The insurance company has the $5,000, and expects it can put that money to work in its portfolio until the woman dies at age 80, but that's *all* the incoming funds it will get *for this specific (mini) policy*. Therefore, it is obvious that the death benefit associated with this particular policy, will be much much lower than what was promised for a base whole life policy with a $5,000 premium but where the contract calls for a lifetime of premium payments.

On the other hand, the cash value of the mini policy will shoot up very quickly with that first premium payment, because it is the first *and the last* premium payment. Remember the takeaway message from the previous section, with our Tables 1 and 2: The passage of a year (and the payment of a premium) contributed more to the increase in cash value, as the last *remaining* premium payment got closer and closer.

But since the mini policies are fully paid up

after one premium payment, right out of the starting gate the woman only has one remaining payment to make. It's as if she's already age 78, rather than age 25, in terms of our Tables above. Her $5,000 payment toward the mini policy causes a large increase in the cash value (which starts at $0 before she's put in any money), which is much larger than what happens if she takes out a standard whole life policy with a lifetime base premium of $5,000.

What we have just described in loose, intuitive terms is how the PUA rider can supplement a traditional, base whole life policy in order to make it more suitable for IBC. For a desired *total* out-of-pocket contribution into the policy, a greater or smaller share can be earmarked for the contractual base premium, with the remainder entering in the form of a PUA contribution. The more heavily the policy tilts toward the PUA, the lower the initial death benefit but the bigger the jump in cash value year after year. On the other hand, the more heavily the policy tilts toward base premium, then the higher the initial death benefit but the smaller the jump in cash value year after year.

Conclusion

Whenever I write articles describing the mechanics of whole life insurance policies, I am forced to choose between simplicity and realism. There are many factors I left out of the analysis in the above, and even my numerical example was not quite how actuaries would break down the problem. But I hope I have given the reader at least an intuitive understanding of how the PUA rider transforms an ordinary whole life policy into one that is specially configured as an "IBC policy."

As always, these discussions highlight the importance of interested individuals finding qualified financial professionals to answer their specific questions and design insurance policies tailored to the specific circumstances of their households or businesses. This is precisely why my colleagues and I set up the IBC Practitioner's Program. The graduates are listed here: www.InfiniteBanking.org/Finder. I strongly encourage any reader interested in IBC to find someone on this list to discuss matters further.

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