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Book Excerpt

The lowdown on insurance salesmen and warranty peddlers

Insure only events that have a potentially disruptive impact on your lifestyle and only if they have a relatively low probability of occurring, says Moshe Milevsky

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This is an excerpt from *Your Money Milestones: A Guide to Making the 9 Most Important Financial Decisions of Your Life*, written by Moshe Milevsky.

An excerpt from Chapter 7: Insurance Salesmen and Warranty Peddlers: Are They Smooth Enough?

Insurance Purchases: Another Form of Smoothing

Imagine there is a 0.1 per cent chance that at some point in your life you will suffer a loss (or have to pay) $1,000,000 because of some natural disaster or unforeseen accident. If this one-in-one-thousand event occurs, you will face a sudden and dramatic reduction in your standard of living. You might have to take on extra debt, accept a second job, or perhaps even file for credit and bankruptcy protection. Moreover, if you've diligently been practicing Long Division, your smoothing apparatus will be destroyed.

Now, what if I offered you an insurance policy that could protect you against this disruption? In exchange for an annual premium of $1,000, you could rest assured that if this catastrophe occurred, the loss would be covered. Would you take this policy? I would. Although my overall standard of living would be reduced marginally because of the extra $1,000 I would be paying every year, this reduction is much less painful to me than the enormous disruption from a sudden million-dollar drop in my net worth would be. (This hypothetical insurance example differs materially from the cordless phone "protection policy" because although the disruption to my standard of living represented by the payment of the extended warranty for the phone is even more trivial, the loss I would experience if that particular phone stopped working is so small it doesn't even register.)

Thus, at its core, insurance is a smoothing mechanism. However, unlike Long Division, insurance doesn't smooth consumption across time; instead, it's about smoothing across different alternative universes, ones in which you or I experience an unfortunate roll of nature's dice. In one future alternate universe, you don't get hit with the million-dollar catastrophe, and your life turns out just fine. In another, less probable, future alternative universe, you went bankrupt at the age of 40 because you were hit by the million-dollar disaster. (And you

didn't insure against this risk.) So, to smooth consumption over all the alternative universes you will encounter across your life cycle, you purchase insurance to protect, or smooth, your lifestyle across all these potential outcomes.

Now, I don't believe that most people actually think this way about insurance. (If they did, no one would offer extended warranties on inexpensive consumer items, or for that matter on boats I don't own.) However, this is my recommended way of viewing the money milestone purchase of insurance.

But this "insurance to smooth" thesis doesn't imply that you should go out and insure every single possible bump or blip in any possible universe. Small losses, such as the failure of a $110 phone after two years of use, should not be insured, unless you are living in extreme poverty on $2 per day like almost half of the world population. (In that case, why are you buying a phone that costs nearly two months' wages?) The $110 loss will not cause a material disruption or unraveling of your family's smooth life-cycle plans. So, I say forget the extended warranty, do not insure against this loss, and don't waste your money on the premiums.

On the other hand, if the event you are insuring against could cause an enormous disruption to your standard of living, go ahead and insure. So, ultimately, you have to consider two aspects of every potential catastrophe. First, what is the probability this event will take place (very small, average, or very high), and second, if the catastrophe occurs, what is the magnitude of the disruption (very large, substantial, small, miniscule) to your smooth standard of living? My proposition is that you should insure only events that have a potentially disruptive impact on your lifestyle, and only if they have a relatively low probability of occurring. I'll explain more about this two-dimensional approach in a later section. For now remember the following rule for insurance coverage: Buy it for events that are both catastrophic and unlikely.

Life Insurance as a Hedge for Your Human Capital: When Young

According to the American Council of Life Insurers, the total amount of life insurance coverage in force today in the United States is approximately $$20-trillion (U.S). This staggering sum of money would be paid out only if all the insured individuals died at the same time. Short of a widespread fatal epidemic or a gigantic meteorite hitting our planet, the insurance industry can safely assume that this amount will not be paid out all at once. In fact, some of this money might never be paid out at all if people stop paying their premiums and their policies lapse.

If all the insured individuals in the United States died at the same time, that would clearly be a disastrous event for the life insurance industry. But in your own life circumstances, all it takes is one death–your own–to register as a catastrophe. Recall that when you are young, your greatest asset is your untapped (or unmonetized) human capital. Therefore if you die young and with dependents, you've lost–or more to the point, your family and dependants have lost–that future income.

So the proper way to think about life insurance (and disability insurance, critical illness insurance, and even unemployment insurance) is as a hedge for your human capital. In the world of finance, a hedge is an investment to limit loss. If something happens to you, the insurance company will pay out the death benefit (or face value) of the policy to your beneficiaries.

I explored the concept of insurance as a human capital hedge in my earlier book (Are You a Stock or a Bond?). At this point I want to simply emphasize and remind you that as you age and progress through the human life cycle, the argument (and the need) for life insurance to protect human capital is much weaker because the value of human capital declines with age. When you are retired, for example, it is hard to justify the payment of large insurance premiums to protect human capital that has a low value. So, in preparation for retirement, you should have converted a large portion of your human capital into financial capital, and you should thus be more

concerned about protecting this financial capital that must now sustain you for the rest of your natural life than protecting your human capital (or your phone!). Indeed, likely the only argument for maintaining a large and permanent insurance policy at advanced ages is for estate planning or tax purposes. Life insurance is about smoothing income for your family and loved ones across alternative future universes: It is not meant as a consolation prize for the living or as a reward to your spouse for putting up with an old cranky nuisance (that would be you, in retirement). If you have insurance at later stages in life, the premiums you've been paying and will continue to pay for many years to come would have likely been better off deposited in some bank account.

According to historians, the origin of the idea that life insurance is for protecting the value of human capital, and that you should accordingly use an estimate of total future earning power to determine a suitable amount of life insurance, is Professor Solomon Huebner. Just shy of a hundred years ago, Huebner taught the first formal courses on life insurance at the Wharton School of Business at the University of Pennsylvania. He also wrote the foundational textbooks on life insurance and helped create the modern insurance industry association. Huebner outlined his "human life value" approach to life insurance in a series of lectures beginning in 1919. An academic review of his impact on the life insurance industry notes, "Huebner encouraged salesmen to calculate a man's career earning potential as his human life value, wrapping the matter of setting an indemnity in the solemn science of economics. He especially urged solicitors to target 'all persons working on a salary, be they ordinary or expert' for life value appeals, for in the professions 'the life value constitutes practically all their business worth.'" So, when economists at the University of Chicago, such as Professor Gary Becker and Professor Theodore Schultz, were talking (in the 1960s and '70s) about the importance of investing in and returns from human capital, they were building on the foundation created (in the 1920s and beyond) by Professor Huebner, who preached the importance of protecting the human capital you already have.

Life Annuities as a Hedge for Your Financial Capital: When Old

Although I discuss the topic of pension and retirement income planning in Chapter 9 ("Retirement: When Is It Time to Shutter the Well and Close the Mine?"), this is a good time to remind you that insurance isn't just about protecting the family against bad things (like death and disability or unemployment); it can also be used to protect the family against something good, namely that you live too long! Yes, I know this might sound odd, but nowadays you can actually purchase an insurance policy that will pay out if you live an unexpectedly long time. This is called longevity insurance, and it is actively marketed under various generic names by a number of insurance companies in the United States and Canada.

Here's how this works: Think about your future self at the fine old age of 80. You are in good health, relatively active, but retired from regular work many years ago. According to your doctor (who you visit regularly), there's no reason why you won't make it to the age of 95 and even beyond. Today the odds are that a healthy 80-year-old female has a 50/50 chance of living to age 89 (and age 87 for a healthy 80-year-old man). In fact, there is a 25 per cent chance that an 80-year-old female will make it to the age of 93 (or 91 for a man). Moreover, the better your health, the greater your expected longevity. There's even an 11 per cent chance for a female, and an 8 per cent chance for a male, of seeing 100 and triple digits on the birthday cake. In the United States today there are close to 100,000 people above the age of 100. You might be one of them, either now or later.

Now think about the alternative universe analogy. In 90 out of 100 possible future universes, you do not live to 100 and hence don't have to worry about providing for yourself at that advanced age. However, in 10 out of those 100 possible future universes you do. Will you have enough money saved? Or will you have to reduce your standard of living? Again you are faced with a smoothing dilemma. But unlike our 25-to-25 example, this disruption does not come from a sudden accident or calamity that costs millions of dollars: Instead it is a slow and prolonged slide that erodes the purchasing power of your money over time and thus reduces your ability to maintain a smooth and dignified standard of living. So, as I've said, it is possible to purchase insurance so that

if you win this particular jackpot, you get either a large up-front or small periodic payment to help meet your expenses. (More on smoothing mechanisms for longevity in Chapter 9.)

However, surprisingly enough, your chances of dying might also be affected not only by your physical health, but also by the health of the economy you're living in. There is some interesting research that seems to indicate that mortality rates (which tell us the rate at which people die at any given age, or the probability of you personally dying during the next year) actually decline in bad economic times. Counter-intuitively, in times when unemployment is above average and the markets are in a funk, fewer people die, which means that people live longer. In contrast, when financial times are good, apparently mortality rates increase. Whether this is because people have more time to exercise and eat carefully in recessions or whether it is due to reduced smoking or even reduced traffic accidents is all subject to speculation in a paper published in the American Economic Review. From my perspective though, this phenomenon is more than just a public policy curiosity. For those concerned about the holistic management of risk for the household and the value of all assets on the personal balance sheet, this evidence brings yet another dimension to the interaction between human capital, financial capital, and the role of insurance. If you follow the findings of the research paper, you can almost think of health itself as a personal asset class that is negatively correlated to the economic environment and the performance of your stock portfolio. (That is, your health moves in the opposite direction to the economy.) At the extreme, it seems long periods of unemployment and reduced income, paradoxically, might imply that you need to save even more money for retirement. How ironic is that?

What and When Do People Actually Insure?

Like some of the other decisions I have so far addressed, evidence shows how people actually make their insurance milestone decisions differs quite substantially from how they should make those decisions. For example, the research consensus is that low-income households generally do not have enough life insurance to protect the family if a death of the breadwinner occurs. An article published in the Journal of Financial Intermediation reported that a quarter to one-third of American wives are inadequately insured, meaning they would suffer a material loss in their standard of living should their spouses die. These families either do not have life insurance or have too little. In contrast to this underinsurance problem among low-income earners, it appears that high-income households tend to over-insure the life of the major breadwinner. In other words, a large number of these people might actually be worth more dead than alive! Economists have a politically correct phrase for this: They call it a mismatch between insurance holdings and insurance vulnerabilities. What you see is that while on average people in general might have enough life insurance, this average masks a wide disparity in vulnerabilities across the socioeconomic spectrum. (Again, you can see that averages can conceal as much as they reveal.)

Another puzzling phenomenon regarding the purchase of life insurance was reported by researchers at Florida State University. While examining comprehensive sales data from national insurance companies, the researchers noticed odd and unpredictable spikes in the regional purchase of life insurance. They couldn't explain these results by looking at promotional offers, discounts, or any other supply-driven explanations. But, they noticed that, for example, suddenly and seemingly without cause, weekly sales of life insurance in the State of Georgia would triple. Or over the course of a month, five times as many people would apply for life insurance compared to typical sales volumes.

After scratching their collective heads about this, and running a variety of statistical tests on the numbers, the researchers decided to scan the local papers for clues. Perhaps, they figured, a local celebrity had died, or there had been a major traffic accident fatality or other corresponding sudden increases in mortality. But it turns out, oddly enough, that the answer was not in the obituaries section of the newspaper but in the front page and the weather sections. The regions with these inexplicable jumps in life insurance purchases had also recently

experienced spikes in serious hurricanes and tornados. Now, these natural disasters didn't necessarily kill or even seriously injure anyone. Sure, the property damage was extensive, which you'd think might increase the demand for an interest in property and home insurance, but surprisingly, it also increased the demand for life insurance. According to the researchers this irrational effect can actually persist for years after large and well-publicized natural catastrophes. In their words: "Research indicates that the occurrence of a catastrophe may lead to an increase in risk perception, risk mitigation, and insurance purchasing behavior." I think this example actually gets to the core of how most people treat life and other insurance transactions. That is: Our decisions tend to be emotional and fear-driven, as opposed to fully rational. Few consumers treat the insurance milestone as part of the life cycle smoothing exercise I previously described; however, Table 7.1 provides some illustrations of how to work through insurance purchases rationally.

Table 7.1: **You Are 45 Years Old. What Are Multiple Paths of the Future?**

Event (Possible State of Nature)	**Probability It Will Happen to You**	**Magnitude (If It Happens to You)**
Live to 95	11.4 per cent	Unless you are a multimillionaire, with oodles of cash to spare, get a pension.
Die within the next five years	0.62 per cent	If you have a family that depends on your income, get life insurance.
Lose your toe in an industrial accident	Less than 0.012 per cent	If you work at a job where you need all ten toes, insure them!
Asteroid Apophis hits the Earth in 2036	0.0022 per cent	Could wipe out a country the size of France or Germany and kill millions of people. If you're in the strike zone, perhaps move?
Earth gets sucked into a black hole	No reliable data available	We are all dead. Don't bother worrying about it!
Get struck by lightning	5–20 per cent	Can be surprisingly benign, although death from cardiac arrest is common. Get life insurance if you need it, not "lightning-strike insurance."
Get sick from the flu this year	20 per cent	Annoying. A few days of missed work. Do not insure.
Your $110 phone breaks	100 per cent	Trivial. No disruption. No insurance!

As you can see, some events are extremely likely and not very costly; whereas others are extremely unlikely and extremely costly. You want to insure (that is, smooth across alternative universes) only those events that have a relatively small chance of happening and that are likely to disrupt your and your family's standard of living.

I've provided you with some irrational and rational ways to think about insurance milestone decisions. Now you might be wondering how I personally handle these decisions. How rational am I in practice? Here's my guiding principle; it's the phrase I used earlier: catastrophic and unlikely.

Create Your Own Insurance Company: The "Small Risk Fund"

As you gathered from the earlier part of this chapter I (religiously) avoid paying for insurance on any trivial risks that will not overly disrupt my smooth lifestyle. I don't buy extended warranties, trip cancellation insurance, or extra coverage on car rental policies. This saves me quite a bit of money. At the same time, I have also asked my own insurance company to increase my deductibles to the maximum allowed, which means that I personally am liable for the first $1,000 (or so) of damage to my car and the first $5,000 (or so) of damage to

my house in the event or a storm, flood, or fire. In addition, although I spent quite a bit of time carefully studying the issue, I also decided not to buy critical illness insurance, which is rather popular in Canada. These gambits save me quite a bit of money on an annual basis. But none of this is irresponsible or neglectful behavior on my part because I have self-insured, consistent with the smoothing process I advocate.

You see, I actually keep careful track of all the premiums and fees I have not paid. This money represents, after all, a rough estimate of all the damages and costs an insurance company might have to pay me, on average. So, instead of spending the money I've saved on something else, or just ignoring the savings, I deposit those funds in a dedicated account that I call my Personal Insurance Reserve Fund. I manage this account like an insurance company (is supposed to) manages their reserve: risk-free investments only and no dipping into the cookie jar (except to cover a loss).

So the account sits (earning a bit of interest) and is tapped into on the unpredictable occasion that our household experiences an unexpected financial battering–something that might have been covered by insurance, had my wife and I decided to buy it. In that case, we tap into the Reserve Fund to cover the replacement cost. Now, let me make this clear: I'm not talking about a rainy day fund or slush account to cover a new roof or resurfacing the driveway. I'm talking about a true insurance reserve fund. Our family constitution (Okay, the one I maintain in my head) stipulates that the fund can be tapped only for expenditures that would have been covered by insurance we declined, and I am careful to deposit all the (hypothetical) premiums into this account. Not surprisingly, I have been forced to tap into this reserve fund over the last few years–for a basement leak and an accidental fender bender that the insurance adjuster gleefully informed me was less than the deductible–but the Reserve Fund is still showing a large surplus and has never been exhausted by any abnormally large claims. (It isn't surprising that I've had to dip into the Reserve Fund because the risks I've decided to self-insure are both relatively common and relatively cheap.) And after all, I still have insurance coverage for the large catastrophic disruptions to my smooth lifestyle. I've created a calculator that enables you to compare risks you should share with an insurer and those you might want to self-insure, plus some estimate of the costs you might save by self-insuring. Go to www.qwema.ca to check it out.

Now, why do I play this game with myself? Why not just merge this fund into our family's general account and manage all the money together?

Behavioral Economics in Practice

Indeed, my behavior demonstrates a number of quirks that behavioral economists such as Richard Thaler have identified and explored. When I ponder my reasons for establishing and maintaining my Insurance Reserve Fund, what I say to myself is usually some variant of: I do this because I want to avoid the regret associated with tapping into the family's general finances if something breaks. (Behavioral economists would call this mental accounting, the process by which people group their assets into individual, nonfungible accounts.) I also want to ensure we don't spend the saved money on trivial things (thereby displaying my loss aversion, or the strong human preference for avoiding losses as opposed to acquiring gains) and impose discipline in our finances (by using a commitment device, which locks me into a course of action I wouldn't ordinarily follow but that produces a desired result). I'm also anchoring (or relying heavily on one piece of information when making decisions–identifying "saved money" from my foregone premiums, as opposed to viewing this money neutrally). In this way, I guess I'm a walking example of the realities of behavioral economics; that is, how people actually behave as opposed to how purely rational creatures (what Thaler calls "Econs") would behave.

Now, once again, this might seem like the ultimate behavioral fallacy, creating a mental account to which I attribute losses, but like I've said, my account is more than just psychological (or mental!). If you can't self-insure because you can't keep your sticky fingers off the Insurance Reserve Fund (instead of using it to cover losses, just like an insurance company would), go ahead and buy all the insurance and warranty policies you

want. (And I know a boat insurance salesperson you should really talk to.) It's probably cheaper than paying for financial therapy from a behavioral psychologist. However, if you can handle the risk and the disruptions, which will vary in magnitude for different people of different means, go ahead and save the (unpaid) premiums like I do.

My personal Reserve Fund today contains thousands of dollars, which is the sum of all the discounts I received from abnormally high deductibles on my insurance policies. The difference between covering the first $500 of damage (the standard deductible on home insurance) and the first $5,000 in damage can be up to half of the usual premium. The home insurance agent was actually quite reluctant to allow me to do this and made me sign repeatedly that I understood that the company would likely not cover the vast majority of the claims they usually receive. But that was exactly the point: By saving them from paying me a claim 90 per cent of the time and covering only the catastrophic losses, I was saving them money for two reasons: one obvious and one subtle. The subtle one is that I, as a homeowner, was signaling to the insurance company that I would take much better care of the property (by having sufficient working smoke detectors and keeping my doors locked). Knowing that I was thus a lower overall financial risk to them, they reduced my premiums even further. Try this yourself. But remember, make sure to save the difference!

Of course, here is the best part of this exercise. If a loss occurs, you don't have to argue with an insurance company, you won't have to dicker with the adjuster or the agent about whether your claim is covered, or worry about whether the policy fine print covers what you actually thought it covered. After all, you are making a claim on your own reserve fund. You only have yourself to argue with.

In closing: The point of insurance is to smooth your lifestyle over alternative universes. Insurance isn't an investment or a form of protective magic. It is important to understand that the investment return from buying insurance is always negative. That is, you can't make money "on average," and the insurance company make money "on average" at the same time. Instead, they charge you–and everyone else–more than the amount they expect to pay out. Otherwise the company would go bankrupt, and you wouldn't get paid either. So, take advantage of this risk pooling mechanism–but don't go there for a leisurely swim.

Summary: The Four Principles in Practice

•There are many decisions and money milestones in life that have an insurance aspect to them, but they tend to be misunderstood. At its core, the purchase of any type of insurance is best understood as a smoothing mechanism.

•However, unlike Long DIVISION that smoothes over your total resources over time, insurance smoothes consumption not over time, but over MULTIPLE possible universes.

•In considering insurance purchases, you need to evaluate both the probability of loss (that is, SUBTRACTION of assets) and the magnitude of the disruption to your standard of living if a loss occurs. A rational approach is to insure only catastrophically unlikely events.

•The real-life world of insurance is full of mismatches and irrationalities. Insurance decisions tend to be emotional and fear-driven. An alternate approach to wasting money on minor warranties and insurance policies is to rationally DIVIDE financial risks into those you will share with an insurer and those you will self-insure. Set up your own Insurance Reserve Fund with the money you save by ADDING and saving the unpaid premiums.

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