

Risk Management ... The Role of Insurance

Insurance model

The insurance contract transfers a risk that you are unwilling to take yourself to a third party.
Suppose your home is worth \$1M (excluding land), and there is a 1 in 2000 chance that it could burn to the ground in any given year:

$$\begin{aligned} \text{Premium cost} &= \text{Actuarial cost of risk} + \text{Overhead cost} + \text{Profit} \\ &= \$500 + \text{say } \$150 \text{ (i.e. 30\%)} + \text{say } \$50 \text{ (i.e. 10\%)} \text{ pa.} \end{aligned}$$

Insurance is **inherently expensive**

Only buy insurance where you really need it; self-insure for small items

Best suited for low probability risks with a high financial cost, e.g. homeowners insurance

Least suitable for low cost events with a high probability of occurrence, e.g. vision care.

Insurance is **not an investment** (or at best a lousy one!)

Theory of Large Numbers the big advantage the insurance companies have:

For example, you cannot predict the end of your personal retirement, say age 85 +/- 15 years
..... but the actuaries know to the day the lifespan of the average person.

Auto Insurance

Liability: Bodily injury, property damage, e.g. \$250k/500k/100k

\$1,000 deductible collision, \$1,000 deductible comprehensive, uninsured motorist, etc.

Homeowner's insurance

Dwelling, personal property, loss of use. Personal liability, property damage, etc.

Does not cover damage from a flood or an earthquake.

Flood insurance

Mandatory if you live in a flood plain.

Earthquake insurance

Dwelling (5% - 25% deductible), contents, living expenses, etc.

Cost ~0.2% pa with 15% deductible, e.g. ~\$2,000 pa for \$1M coverage with \$150,000 deductible

Life insurance www.term4sale.com

Term insurance (pure insurance) is suitable for younger people to protect their family

Suitable for a wage-earner with two young kids to put thru college

Replaces future earnings if the wage-earner should die prematurely

Less necessary as the wage-earner(s) build an investment portfolio to cover the costs directly.

Whole life policies are usually sold, not bought, and usually make lousy investments

Sales commission is typically 50% - 100% of first year's premium

Usually have a negative return for the first 5 - 15 years, 2% - 4% long-term.

Disability insurance (Potential train wreck)

Premature death is not the worst case for our young wage-earner.

The family could be in a much worse financial condition if a freeway accident disables

him/her for life. They could lose not only the wage-earner's future income stream, but also be burdened with expensive long term care for decades.

Health insurance

Very expensive in U.S: Twice the cost, with inferior care, compared to other developed countries.

Medicare

Health care for those over age 65: Will be covered in detail at our April 10th discussion group. Major gaps require independent supplemental coverage, e.g. foreign travel, long term care, etc.

Long-term care insurance (Potential train wreck) www.aaltc.org www.genworthlhcquote.com

70% of people over age 65 will need assistance with the activities of daily living

Bathing, continence, dressing, eating, toileting, transferring and (cognitive impairment)

Average stay is 2 to 3 years, but dementia patients could need care for two decades.

Expensive: >\$100k pa for assisted living facility. Not covered by health care policy or Medicare
Most suitable for middle income people; Poor can't afford it, and rich can self-insure.

Important parameters:

Premium cost: 3% to 10% pa at age 65
Elimination period: Typically 3, 6, 9 months
\$ amount of monthly benefit

Coverage: Qualified facility, in-home care
Term of policy: 3 - 5 years, longer if possible
Inflation rider if possible
Rating of the insurance company

Consider a hybrid life insurance policy or an annuity to get longer coverage.

Social Security

Pension benefits starting at age 62 to 70. Will be covered in detail in April 10th discussion.

Annuities www.stantheannuityman.com www.immediateannuities.com

Single premium immediate annuity (SPIA)

Pay premium now to buy a monthly cash flow for the rest of your life, starting immediately

\$100,000 premium at	<u>Male</u>	<u>Female</u>	<u>Joint (same age)</u>
..... age 60	\$497/mth (6.0% pa)	\$477/mth (5.7% pa)	\$438/mth (5.3% pa)
..... age 70	\$629/mth (7.5% pa)	\$595/mth (7.1% pa)	\$519/mth (6.2% pa)
..... age 80	\$939/mth (11.3% pa)	\$858/mth (10.3% pa)	\$709/mth (8.5% pa)

Single premium deferred annuity (SPDA), or longevity annuity

Pay premium now to buy a monthly cash flow for the rest of your life, starting at say age 85

\$100,000 premium at	<u>Male</u>	<u>Female</u>	<u>Joint (same age)</u>
..... age 60	\$4,845/mth (58% pa)	\$3,906/mth (47% pa)	\$2,756/mth (33% pa)
..... age 70	\$3,319/mth (40% pa)	\$2,760/mth (33% pa)	\$1,828/mth (22% pa)
..... age 80	\$1,713/mth (21% pa)	\$1,471/mth (18% pa)	Call for quote

Liability insurance (Potential train wreck) www.whatsmyliability.com

Protects against claims in excess of your auto and homeowner's policies for ...

... Bodily injury to others: Your teenage driver hits a carful of attorneys on the freeway.

... Property damage: Your prized oak tree crashes thru your neighbors living room.

... Lawsuits for slander, libel, mental anguish, etc.

Who needs umbrella insurance? Probably anyone with assets greater than their auto/HO policies

How much coverage?

\$1M to \$2M minimum: incentivizes the insurance company to provide good legal support

\$2M - \$5M typical: Net worth + small delta ?

\$5M - \$10M maximum except for HNW people

Cost is relatively low: approximately \$150 - \$300 per \$1M per annum.

Social Security and Medicare: April 10th, 2019

Estate Planning: May 8th, 2019

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