Individual Tontine Accounts – Yes, Seriously!

By Richard Fullmer and Michael Sabin *Thu, Oct 11, 2018*

Tontines offer investors a way to pool mortality and longevity risks directly among themselves, without intervention by any insurance company, write our guest columnists. (Pictured: Lorenzo di Tonti, creator of the tontine.)

Tontines are a much-misunderstood investment arrangement that deserve a fresh look. Put aside everything you thought you knew about them. Forget the devious plots found in fiction novels, and do not confuse modern day tontines with the sketchy, opaque products called “tontine insurance” that were banned out of existence a century ago.

Modern day tontines such as we envision are fair to all, completely transparent, simple to understand, perpetually open to new members, always fully funded, able to provide the assurance of lifetime income to those who want it, less expensive than guaranteed lifetime income alternatives… and surprisingly versatile!

In a recent **study**, we explored this versatility potential by examining the concept of tontine brokerage accounts in which individuals freely invest as they choose and select from a wide array of payout options. We show that such arrangements, which we call individual tontine accounts, or ITAs, can be fair to all members regardless of who else participates and what decisions they make in their own accounts.

ITAs could serve as a special type of mortality-pooled Individual Retirement Account (IRA), allowing retirees to derive extra income from their savings without taking on additional investment risk, and giving themselves the option to secure annuity-like lifetime income at lower cost. The time is ripe to take a serious examination of the modern-day fair tontine as an important new arrow in the quiver for addressing the global retirement crisis.

What is a tontine and how is it different?

A tontine is a financial arrangement in which members mutually and irrevocably agree to receive payouts while living and share the proceeds of their accounts upon death. Specifically, a member’s account is forfeited at death, with the proceeds apportioned among the surviving members. Payouts naturally vary depending on investment performance and the mortality experience of the membership pool.

Tontines offer investors a way to pool mortality and longevity risks directly among themselves, without intervention by any insurance company. Risk pooling is powerful because although the lifespan of any individual member is highly uncertain, the lifespan of the group is much less uncertain.

Tontines allow members to diversify away substantially all idiosyncratic longevity risk – the uncertainty associated with how long they will live and how much they can withdraw or spend without outliving their savings.

Members do bear systematic mortality risk – the risk that the entire membership group lives longer or shorter than expected. However, this risk is mitigated by the fact that adjustments to tontine payouts are made gradually over time. Should the membership die slower (or faster) than expected, payouts adjust downward (or upward). These continual adjustments, along with similar adjustments for investment performance, are the mechanism that keeps the tontine fully funded at all times and allows it to offer the assurance of lifetime payouts. To anyone concerned about the sad state of underfunded pensions, these words are music to the ears.

How does a tontine compare to a payout annuity?

Unlike payout annuities, tontines guarantee nothing. Fixed income annuities guarantee some assumed interest rate, whereas variable income annuities do not. Both types of annuities provide guarantees that cover both the idiosyncratic and systematic components of longevity risk. Tontines alleviate the idiosyncratic component only, but keep in mind that this component represents by far the greatest worry. In addition, since insurers must charge for the risks they take on, annuity purchasers sacrifice a significant yield as the price for transferring the systematic component of mortality risk to an insurer rather than bearing it themselves.

How do tontine returns compare to those a regular investment?

The total return of a tontine investment is a function of two components: 1) the investment returns, and 2) the amounts credited to survivors when other members forfeit their accounts at death. It is the second component, which actuaries call “mortality credits” but we call “tontine gains,” that makes the tontine return different from that of a regular investment.

Tontine gains reflect the extra amount credited to a surviving member’s account due specifically to having invested in a tontine. Members suffer complete tontine losses when their account balances are forfeited upon death, but surviving members enjoy tontine gains when the proceeds of these forfeitures are shared among them. For actuarially fair tontines such as we advocate, the net effect is that the expected total tontine gain to each member is zero.

Zero?

“Yeah, zero is a wonderful thing. In fact, zero is my hero.”

As proffered in the 1973 Schoolhouse Rock song lyrics by the late jazzman Bob Dorough, zero is a wonderful thing. That the expected net total tontine gain for each member is zero means that the expected total return of each member’s investment is the same regardless of whether it is made inside or outside of the tontine. This principle is what enforces fairness; no one is advantaged or disadvantaged by entering the tontine.

The useful thing about this is that although the expected value is the same whether inside or outside a tontine, investing inside a tontine changes the conditional distribution of outcomes – those who live long lives do better by participating in the tontine, while those who die early do worse. (The zero expectation is an average, weighted by the member’s probability of survival.)

Individual Tontine Accounts

We envision ITAs as individually owned investment brokerage accounts offered through a common tontine pool. They may be opened as IRAs or standard taxable accounts. Contributions are irrevocable, but members may invest and trade as they wish, selecting among a range of permissible liquid investments, including stocks, bonds, exchange traded funds (ETFs), and mutual funds. Naturally, those desiring smoother payouts would select more conservative (i.e., less volatile) investments.

At the time an account is opened, the member elects a payout option from a wide variety of alternatives. Examples include lifetime payouts similar to immediate life annuities, deferred lifetime payouts similar to longevity insurance, payouts over a specified period similar to term annuities, or even a simple term investment. This election is binding such that the selected payout schedule may not be accelerated.

Fees would be plainly and transparently disclosed, and all-in costs to members could be very low when low-cost investments are selected. Our proposed method of tontine accounting is fully transparent and readily auditable. Member statements are easy to understand, showing a full accounting of the cash flows that affect a member's account balance and payout.

Surprise! The decisions of others do not matter

One of the most paradoxical attributes of fair tontines in general and ITAs in particular is that an individual member's results are largely unaffected by the investment and payout choices of the other members. How can it be that an aggressive investor is not disadvantaged by being in a pool full of conservative investors who are likely to die with lower balances than if they had invested more aggressively? Wouldn't he be better off if the other members also invested aggressively and died with larger balances? The surprising answer is no – the decisions of others will not much matter (nor will their demographics). Those who find this puzzling may wish to read our Individual Tontine Accounts paper.

Individual tontine accounts are an attractive solution to the retirement income problem. They operate like IRA brokerage accounts, with the added benefit of providing tontine gains on top of a member's underlying investment returns.

Economists and public policy makers have long pondered the so-called annuity puzzle; namely, why do so few people annuitize when it seems to be in their interest to do so? To the extent that the answer involves the perceived high costs and lack of transparency of annuity products, ITAs represent an attractive remedy.

ITAs give retirees a low-cost way to derive extra income from their savings without taking on additional investment risk. Since account holders cannot withdraw freely from their accounts whenever they wish but rather only per a payout schedule selected at the time of contribution, ITAs are not a complete replacement to traditional IRAs. But they could be a useful complement, one with unique benefits not otherwise available from traditional investment and annuity products.

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