Tontines in the Townships of South Africa

By Moshe Arye Milevsky *Thu, Sep 14, 2017*

Who is a South African startup going to call when they need advice on creating a tontine-like micro-pension for low-income workers? Our guest columnist and tontine expert met with a pension provider called 'Nobuntu' and some prospective pensioners.

For RIJ readers with an academic or commercial interest in tontine annuities, a South African company by the name of NOBUNTU —loosely translated from Zulu into *female spirit of the community*—has just launched a novel savings scheme for low income South Africans.

You can think of this as a micro-pension plan for domestic and other workers who have little in the way of savings for retirement. Right now their only source of retirement income is *ad hoc* support from their prior employer (a gift when they retire) plus a meager sustenance-level pension (Social Grant) from the government; hoping that president Zuma keeps his pension promises.

The way the new scheme works is that every month individuals or employers will contribute a handful of ZARs (South African Rand) to a savings fund, using a text message or WhatsApp. The technology is quite clever, if I may say so myself.

Half the invested or contributed funds are allocated for paying out funeral costs—which is a really big deal in South African culture—and the other half is allocated to what we would call a long-term pension plan. With that part of the pot, if-and-when a participant dies, the money in the pension half of their account is redistributed to survivors in their community in the spirit of solidarity, hence the name of the company Nobuntu. Upon death, the family or beneficiaries only receive the funeral pot. The other half of the pot is forfeited to the group. The participant’s pension investment return, then, is a blended mix of capital, interest and perfectly transparent mortality credits. In essence, this is a modern day (21st century) tontine scheme.

Now, before you say to yourself: “tontines in the South African townships?” and laugh hysterically, please note the following. The company is targeting women in the 50 to 80 age range, many of whom are forced to support two or even three generations of family members in their household. They aren’t selling this on the streets. Note that the unemployment rate in these areas is a staggering 40%. So, this isn’t intended as a lottery, gamble or some perverse pyramid scheme. It is designed to squeeze the highest amount of return from the lowest amount of capital, while respecting their (cultural) need for funeral funds, etc. In other words, every ZAR is made to count using the tontine element.

Now to my part in all of this. When the promoters (Tyron, Ross and Reka) contacted me a few months ago and informed me about their plans, I was intrigued enough to swing by Johannesburg on my way from (lecturing in) Sydney to London. In fact, I spent 72 hours in and around Soweto, which was my first time in South Africa. (I’ll get to the safaris next time around.)

It was an opportunity to observe the modern-day incarnations of the entrepreneurial Lorenzo de Tonti, pitching their novel scheme to potential participants and their employers. While many of the presentations took place in neighborhoods I would never dare to enter alone—and in the Zulu language which I don’t speak—I did pick up some great pointers on how to position annuities and longevity insurance almost anywhere in the word. It was a crash course in (African) behavioral finance and insurance. In fact, almost everyone spoke some rudimentary English and I was able to conduct real research in a place quite different from Monte Carlo.

If you are wondering, nobody in the audience asked about Internal Rates of Return (IRRs), yields to maturity or actuarial tables on which the dividends would be paid. But the audience did ask some really sharp questions about long-term security, fairness, trust and even—what we quants might call—credit default risk.

On a personal note, I developed a newfound and heart-wrenching appreciation for the personal financial challenges one faces with three generations to support and only one breadwinner in the household. Or, think about the technical challenge of pricing and valuing longevity-contingent claims when a large swath of the population has AIDS. It’s one thing to read about these things in academic papers or in books (such as *Portfolios of the Poor*, Princeton U.P. 2009, or the U.S. focused *The Financial Diaries*, Princeton U.P. 2017.) It’s quite another matter to be there in person.

Ok, so during the first meeting I was amused by the novelty of it all and readily admit my biggest concern was getting good pictures on my iPhone—much to the chagrin of my hosts. But by the second tontine enrollment meeting I started paying attention to the finer details, the audience dynamics and listening to (translations of) many of the audience's questions. Trust me, this was no client appreciation event at *Maggiano's.* Audience members were promised a can of coke and a half-donut, buy only if they stayed until the very end.

Eventually though, as the day progressed the big picture finally did sink in. It shook me. Even if these kind folks do sign-up (and start saving for their retirement) and eventually receive some tontine dividends, how will they ever manage? I was told by one of the ministers that every second person in the audience had a relative in their household who had died of AIDS.

So, Nobuntu isn't selling souped-up variable annuities to American baby-boomers or planning on using Blockchain, Bitcoin or Etherium to help shelter your nest egg from income taxes and prying eyes. Etherium, you ask? Well, write a book about the history of tontines in the 17th century and I promise you too will be inundated with similar pitches. This plan is very different.

One of the reasons Nobuntu is such a fascinating experiment—and this young company is able to "move fast and break things"—is that they operate in a (very) loose regulatory environment, known as the *Stockvel* regime in South Africa. Traditionally *Stockvels*—well known to South Africans—have consisted of small community-based savings schemes in which friends and acquaintances help each other by pooling financial resources. Many have been plagued by fraud and other shenanigans.

This post isn't the place or time to get into the regulations pertaining to Stockvels or how the company can innovate without bumping into multiple legal barriers. But the bottom line is that Nobuntu can get away with things that would land them in a heap of regulatory manure anywhere else in the developed world. I can only imagine what a regulator like FINRA or the SEC—let alone the state insurance commissioner—would have to say about such a scheme and the way in which it was presented.

To be clear, I don't think there was any mis-selling taking place. The warm, kind and very welcoming people—I was invited into many of their homes, although the kosher thing got awkward—understood the risks involved. They live with constant risk. Yes, many of them might be classified as having a very low level of financial literacy, but I think they really do get what's at stake, albeit in a non-numerical way.

So, I'm now back in North America for the fall teaching semester but I'll be watching (what I call) the *Sowe-ton-tines* experiment quite closely over the next 6-18 months. The company's success in the narrower world (i.e. "regulatory sandbox") could be leveraged beyond the townships into a broader swath of South Africa. More importantly it could serve as a template in other developing parts of the world that lack suitable pensions or annuities. It's a form of micro-insurance or micro-pensions with a very unique twist, the tontine element.

The founding partners of Nobuntu will soon be releasing a technical document (a.k.a. "White Paper"), to be posted on their website (http://www.nobuntu.co.za/). In it they have promised to explain exactly how they plan to manage the myriads of technical — actuarial, financial and even legal — issues that will undoubtedly arise in such a unique scheme. How will the funds be managed and invested? How will the tontine dividends be calculated? How will individuals of different ages be pooled? How will all of this be explained to participants in a way they can understand?

As you may suspect, I might even lend a hand with some of the mathematical and statistical problems, which are quite interesting in their own right. Perhaps good for a PhD thesis or even two. Stay tuned.

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