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Let's Put the "Fun" Back into Funded Debt*

Flair and imagination are needed to bring wider public participation in bond issuance

Thomas Macaulay traced the origin of the English national debt to a £1,000,000 issue in 1691. Subscribers received a portion of beer and liquor duty revenues for life. As subscribers died, the income was divided among fewer and fewer survivors, who therefore each got a larger share. The game ended when only seven subscribers were left, beyond that point, the shares were frozen with the government sopping up the income as subscribers died. The income to that last group would make them among the richest people in England while they lived.

This gambling game is called a "Tontine" after Lorenzo Tonti, an Italian financial advisor to Louis XIV of France. In 1650 he described the scheme as "a gold mine for the king ... a treasure hidden away in the realm."

The rule about stopping with seven survivors was added in Holland in 1670, to discourage the murders that were associated with the Italian version. The Tontine came to England with William



and Mary of Orange in 1689, along with the idea of "funded" debt. At the time, it meant long-term debt with a specific plan for repayment (generally through assignment of tax revenue) and a

periodic interest payment. This contrasts with earlier practices such as personal short-term loans to the monarch issued at a discount so the interest is implicitly added to the principal at repayment (or more likely, rollover or repudiation). In fact, the willingness of the Stuart kings to repudiate (or get beheaded or dethroned and thereby lose the ability to pay) forced Dutch William to add institutional framework to borrowings for credibility. Today "funded" means only debt with a maturity of more than one year.

During the 18th century, governments and private associations experimented with many kinds of schemes for raising money, involving elements of tontines, lotteries, sweepstakes as well as more exotic bets like infinite maturity ("consol") bond, inflation-adjusted notes and commodity option bonds. But in England and later the United States, a preference developed for fixed-maturity bonds with periodic full interest payout. Lottery bonds of various types still exist (the "premium" bond, a prepaid strip of lottery tickets, is the most popular individual investment in England) and during the 1980s the US government in cooperation with Wall Street rolled out designer products like Strips and mortgage-backed securities, but in the main, government debt is issued with institutional dullness rather than retail dash. State governments in the United States almost all adopted a variety of lottery

*or else it's "ded"

games, but these do not involve significant financing.

America goes to war

Not only did the debt structures become boring, marketing efforts were weak. In the United States, for example, over \$150 billion was raised during World War II from 70 per cent of American families through war bonds. These were simple securities, purchased for 75 per cent of face value, and returning par ten years later. All-volunteer marketing was extensive and inventive with enthusiastic cooperation from Hollywood and professional sports. Irving Berlin wrote the theme song, it was performed by the Andrews Sisters; Norman Rockwell painted the famous Four Freedoms poster; movies and sporting events offered free admission to investors. The bonds were retail-friendly, available for as little as \$7.50, and if even that was too much you could buy \$0.10 stamps to fill up a book and buy a bond. They were available for sale at any bank plus frequent public rallies and other events.

In this century, by contrast, the United States failed to raise \$2 million with patriot bonds to fund the global war on terrorism, which was a small fraction of the amount spent to market them badly. The treasury has improved its marketing to wealthy people, with Treasury Direct online purchase, for example; and federal tax-free municipal bonds remain a mainstay of high-income people's portfolios; but programs for the majority of investors have languished.

Back in 1981, when the US government was paying 15 per cent to borrow 10-year money and having difficulty finding takers even at that price, I proposed it issue the "progressive bonds." These would sell in denominations of \$50 and allow the purchaser to select a number from 1 to 99 inclusive. Every year on New Year's Eve, the President would draw one of these numbers at random. The first year, winners would receive twice their money back. The second year, three times, the third year, four times; up to the 99th year in which the last remaining number holders would get 100 times their initial investment.

This gives the government 99-year money at an annual interest rate of 11 per cent. I think it would have been popular, after all, everyone

wins. You're guaranteed to get at least twice your money back. Every year you miss the number means you will get even more. If you ever want to sell your investment, you can get back your investment plus accrued interest (subject to market value change if the market yield on the bond changed).

You'd have to tinker with the rules today to get an interest rate close to market. Also, 25 years of legalized gambling have led to more sophisticated ideas about retail marketing. But some of the ideas are still sound: letting people pick numbers, small denominations, festive public draw-

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ing, risk with a safety net, marketability. Today I'd add easy Internet purchase, branded bets tied to sporting events or other gambles (imagine a World Series bond that paid off to the residents of a city when their team first won a World Series, with the payout amounts growing every year like a Tontine) and faster payout options like a daily drawing.

Notice that this scheme makes no difference to the government. It gets money today, and repays it in the future. Whether it writes lots of little pro rata checks to investors, or big checks to the lottery winners, it's the same amount of money.

They'll have fun, fun, fun...

Some people's immediate reaction to this idea is horror, if they believe I'm serious at all. Everyone knows finance is supposed to be staid, only an irresponsible person would tarnish the government's credibility in order to foist a gambling game on the public. This view is at odds with history, of course, but also mistaken for deeper reasons. A government too dignified to market itself effectively to its people has taken one step toward

tyranny. Fun is good in public life, tedious complexity is bad.

More down to earth, fun debt is good debt. To see why, we have to examine why governments issue bonds in the first place.

The obvious reason is to raise money, and traditionally that money is almost always used to fight wars. In that case, fun debt is better than dull debt if it's cheaper. It's certainly the case that you can sell attractive retail financial products with an appropriate dash of gambling for lower yields than staid institutional issues. The question is whether that yield advantage covers

the additional marketing costs. I think the answer to that is clearly "yes."

But governments don't have to issue bonds, they can expropriate what they want, or just order people to do things. They can print money or other short-term instruments of exchange, they can impose taxes, fees or duties, they can sell assets (including intangible ones like monopoly rights or titles).

Macroeconomics offers one set of explanations for bonds. Without getting complicated or controversial, it's good for the economy if people work hard and smart, consuming little today but planning to consume a lot in the future. That makes a vibrant, fast-growing economy as people make mostly capital goods for production or future consumption. Long-term government debt encourages this by attracting resources that might be used for consumption or hoarded, making them available to the government, while at the same time promising resources for future consumption. This works best if the government invests in worthwhile long-term projects like education, research and infrastructure; but even wasted money stimulates the economy. The

increased real long-term interest rates encourage people to shift consumption to the future. Alternatives to long-term debt financing can increase inflation and depress real long-term rates, which can have the opposite effect on consumption patterns.

While there is a regrettable dearth of research on the macroeconomic effect of fun bonds, they have some desirable features to a policy designer. They appeal to a retail base more likely to fund the purchase out of consumption or hoarded money than to take it from productive investment. They concentrate money, taking relatively small holdings and paying out larger lump sum returns; we know that concentrated money is more likely to be invested than smaller sums. And in the department of creating expectation of future consumption, nothing beats a lottery.

Until the government takes the T-Bond away

Another reason commonly advanced for government debt is it commits the lenders to support the government. That, in turn, makes the government both more powerful and more beholden to people with money. Some people regard this as an advantage, others have the opposite opinion. I

think the key is whether the debt is divisive, creating groups with opposing interests, or inclu-

sive, binding everyone to a common self-interest. From that view, fun debt has the advantage of attracting a broad group of lenders unlikely to be direct investors in boring government bonds. Also, randomization is a wonderful tool for aligning interests. If everyone chooses a debt maturity, everyone has a different idea of trade-offs between economic growth and inflation and different standards for government spending and taxes. A person certain of her wealth level, and likely associating mostly with people of similar wealth, will likely let that influence her politics. How much easier it is to get agreement among people who know they have a ship coming in, but do not know when. Everyone has an interest in preserving the credit of the government and the buying power of the currency, at all maturities without favoritism, and uncertainty about future wealth breeds tolerance of richer and poorer people. The randomized debt payments cut across lines of social discrimination for a more economically homogenized society.

Government debt is an important aid to the development of financial markets. Users of private capital can imitate government structures at lower cost, because the development, investor education and legal and financial infrastructure work has already been done. Also the government securities themselves often facilitate private financial transactions. Fun bonds would open the door for private securities with gambling and small-investor-friendly features. Most individual investor regulation pushes in the

opposite direction, for less risk and standardized products with low marketing costs. However, despite my admiration for low-cost index mutual funds, they meet the needs of only a minority of investors. Life is messier and people more complicated than can be captured in a dollar-cost-averaged fixed-percentage-of-salary investing in diversified portfolios for a secure retirement. Until a majority of people voluntarily purchase significant amounts of financial products, we need more experimentation. Until the best financial products are available to everyone in easy-to-use form, new ideas are good, not dangerous. We can't just punish the failures that cause losses, lawsuits and anguish; we have to reward the successes that create new satisfied customers, and newly satisfied old customers.

The other major reason governments issue debt, especially retail debt, is to encourage good saving habits among their citizens. By and large, governments have not upheld their end of the bargain. Savings bonds, post office savings accounts and government guaranteed bank accounts have generally proved to be poor investments, paying below-market rates and occasionally ravaged by inflation. These programs have been slow to adopt retail innovations.

Some people would argue that fun bonds would undercut good savings habits, encouraging get-rich-quick dreams instead of steady growth of wealth. I disagree with that. In the first place, the fun bond I described above will accrue in value just like a zero-coupon bond, it is just as stable an investment, except that it has the chance every year of a jump in value. In the second place, putting faith in promised periodic payments is not wise. But my biggest objection is this misses the point. The biggest financial mistake most people make, by far, and with the worst economic consequences, is to spend too much. Anything that attracts retail investment, whether fun or boring, is an improvement on overspending.

I know there will be resistance to this idea. It will be a long time before we see treasury officials hanging around gambling casinos and Internet poker sites to get new ideas for debt issues. But to paraphrase Amelia Earhart, debt "may not all be plain sailing, but the fun of it is worth the price."



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