Whenever I walk by the drug store in my neighborhood, or the 7-11 or the liquor store, I see a line of people waiting patiently to buy state lottery tickets. Many of them look poor, and many of them are members of a minority community. There is always a line. When their turn comes, each person steps up and hands over their wrinkled pocket money -- one or two dollars, sometimes 5 or 10 -- to a clerk who carefully lays it to rest in the register drawer and hands back a few little colored tickets.

These people are investors; they are investing their daily or weekly savings in the Maryland State Lottery, just the way other people invest their savings in the stock market. Like all investors, they are hoping their money will grow as time passes.

There is nothing unique about Maryland's lottery. In the U.S., government-run lotteries are now big business. Starting with New Hampshire in 1963, 37 states and the District of Columbia have begun their own lotteries in recent years. Each year these 38 governments turn a combined profit of $11 to $12 billion on their lotteries. This is $11 or $12 billion that the well-to-do and corporations do not have to pay in taxes because the poor have already paid it for them.[1] A Las Vegas slot machine pays back 90% of every dollar dropped into it, but a typical state lottery pays back less than 60% of every dollar it takes in.[2] Some states are now meeting nearly 10% of their annual budgets with their lottery profits.[1]

What does it matter if people with just a few dollars put their savings into the lottery? It matters a lot because it can mean the difference between being poor and not being poor. As many wealthy people know, if you start saving just a dollar a day when you are young, say at age 16, and invest it shrewdly you can be a multi-millionaire by age 65.

Let's compare the investment returns of two people -- one who invests one dollar each day in the Maryland State Lottery, versus a second person who invests one dollar each day using a long-established technique for making money in the stock market. First we’ll examine the stock market technique, then we’ll look at the lottery.

The stock market investment strategy is called the Dogs of the Dow. For the past 37 years, since 1961, the stock market has returned approximately 16% each year to anyone who invested their money using a Dogs of the Dow strategy.[3] Some years the return is greater than 16%, some years it is less. But year in and year out for the past 37 years, the average annual increase has been about 16%.

Here is how it works. The Dow Jones 30 (DJ-30) is a group of thirty huge corporations whose names everyone knows.[4] On January 1 each year you take 30 small pieces of paper, write the name of a different DJ-30 company on each piece of paper, and then look up each company in the financial pages of a good newspaper, such as the BALTIMORE SUN. Your goal is to get two pieces of information about each of these 30 companies: the current price of their stock, and their current dividend. It’s listed right there in the newspaper, so you just look it up and write it down.

Next, on each piece of paper, you do a simple calculation: you divide the dividend by the price, then multiply the result by 100 and write down the answer. That answer is called the "dividend yield." (Some newspapers do the calculation for you and print it in a column called "Yield %" which saves you from having to do the arithmetic yourself.) Now you sort the 30 pieces of paper into order according to the dividend yield. The higher the dividend yield the better. Then you select the 10 companies with the highest dividend yield and you throw away the other 20 pieces of paper. Now you put your 10 pieces of paper in order according to the price of the stock. The lower the better. The winners are the 5 stocks with the lowest price. (Throw away the remaining 5 pieces of paper.)

Now you are going to invest your money in those 5 stocks -- the 5 lowest-priced among the 10 with the highest dividend yield among the Dow Jones 30. That's all there is to it. Using a computer at the local library, you can open an account with an on-line stock brokerage and you're in business. You divide your available money into 5 equal portions, and with each portion you buy as much of a company's stock as you can afford. Then you wait one year, and you do the same thing again with 30 pieces of paper. Now you sell any stocks you own that aren't on your new list of the top 5: and you use all your available funds to buy stock in the companies that appear in this year's top 5. Then you wait another year and do it again. It takes about 15 minutes each year to invest this way. What you are doing is buying stocks whose price, for whatever reason, is depressed. That is why they are called the "Dogs of the Dow." For have tended to rise an average of 16% in a year's time, The Dow Chip companies, so the "Dogs of the Dow" technique is a relatively conservative approach to investing.

During the past 37 years, if a young person at age 16 started saving one dollar each day (thus saving $365 each year) and once each year broke open the piggy bank and invested that $365 in 5 stocks selected by the "Dogs of the Dow" technique, by age 57, our dollar-a-day investor would have been worth just over $1 million. By retirement age, 65, our dollar-a-day investor would be worth $3.5 million. (This conclusion ignores taxes that the government would impose, and it ignores modest brokerage fees that would be charged for each purchase or sale of stock.)

For comparison, let's look at the fortunes of the average person who invests one dollar each day in the Maryland State Lottery. The Lottery maintains a web site (http://sailor.lib.md.us/mlsa/benefits.html) where we learn that the Lottery gives back in prizes 52.9 cents from each dollar it takes in. Therefore, the average person investing a dollar each day ($365 per year) will win back an average of 52.9 cents. The longer you play the lottery, the more likely it becomes that you will win back 52.9 cents on each dollar you invest. Therefore, the average person investing a dollar each day ($365 per year) will win back 365 x 0.529 = $193.08 each year. The Lottery keeps the difference, which is $171.92, each year. Thus we can see that the Lottery pays its investors at a negative annual interest rate of 0.529-1 = -47 percent.

If a young person starting at age 16 invests one dollar each day in the Maryland state lottery, at age 65 that person's 50-year investment will have grown to a grand total of $401.60. Invested in the stock market using a simple technique, one dollar a day turns into $1 million in 42 years and $3.5 million in 50 years. The same one-dollar-a-day invested in the Maryland State Lottery for 50 years turns into $400.

What has this got to do with environmental health? In the U.S., the two biggest causes of public health problems are intertwined: poverty and the racism that often gives rise to poverty. Poor people have much more illness and early death, compared to people with a decent job and income. (See REHW #584.) Members of minority groups have less access to health care than most people, and when they seek treatment the medical establishment gives them less aggressive, less successful care than it gives to whites. (See REHW #641.)

State governments work hard to make people think that gambling a dollar a day has no effect on their future -- except of course the long-shot possibility of a huge win. Our schools don't teach children about probabilities, so they have no idea how vanishingly small is the likelihood of "winning the lottery." Most of our schools also don't teach kids about the power of compound growth rates (for good and for ill). (See REHW #197 and #199.) As a result, the poor are investing in state lotteries and are subsidizing the rich to the tune of $11 or $12 billion each year. For their parts, the rich are avoiding the lottery like a venereal disease and are investing their
money in the big Blue Chip polluters using simple, well-established techniques that have historically yielded a substantial financial gain.

Frankly, the lottery can only survive so long as people remain ignorant of math. State governments create that ignorance in the schools, then exploit it via the lottery to reduce taxes on the wealthy. If a state government is dependent upon the lottery for meeting its budget, it will invest huge sums -- tens of millions of dollars, or more -- to bamboozle people into laying down their dollars week after week. Indeed, state governments in 1995 spent $382 million on lottery advertising, promotional expenditures and other flim-flam.[5]

People concerned about environmental health, and about community economic development, should consider the lottery like a poisoned well. People go there seeking hope, seeking huge benefits; instead they get ripped off, impoverished by the state government that was elected to protect them. The average person who consistently invests in the lottery will remain poor forever.

I am certainly not advocating that people start investing their savings in the Dow Jones 30, or even in the stock market. I am merely drawing a comparison between wealthy investors who are "in the know" and investors who are "in the dark." Those "in the know" never invest in the lottery because they understand that it is designed to ensnare losers. For the health of individuals and communities, the lottery should be considered in the same category as arsenic, cyanide and dioxin: a potent poison.

--Peter Montague (National Writers Union, UAW Local 1981/AFL-CIO)


[3] This technique is described in many books; for example, Michael O'Higgins and John Downes, BEATING THE DOW (New York: HarperCollins, 1992). Or see David and Tom Gardner, THE MOTLEY FOOL INVESTMENT GUIDE (New York: Simon & Schuster, 1996). The most careful analysis of the "Dogs of the Dow" is available for $25 in the form of an Excel spreadsheet that examines the historical gains achieved by many variations of the "Dogs of the Dow" approach, several of which have provided returns exceeding 16% per year for the past 37 years. For example, the "RP4" variation on the Dogs of the Dow approach has returned 19.6% per year for 37 years. At this rate, a 16 year old investing a dollar a day would be a millionaire by age 51 and would have $14 million in the bank by age 65. Again, this calculation ignores taxes and brokerage fees. See www.fool.com and look for the "foolmart" section where the "Dow Dividend" spreadsheet is sold for $25.00.

[4] Here are the Dow Jones 30 (with each company's stock symbol inside parentheses): AT&T Corp. (T); AlliedSignal Inc. (ALD); Aluminum Co. of America (AA); American Express (AXP); Boeing (BA); Caterpillar Inc. (CAT); Chevron Corp. (CHV); Citigroup (C); Coca-Cola (KO); Walt Disney (DIS); Du Pont (DD); Eastman Kodak (EK); Exxon Corp. (XON); General Electric (GE); General Motors (GM); Goodyear Tire (GT); Hewlett-Packard (HPW); Int'l Business Mach. (IBM); Int'l Paper (IP); Johnson & Johnson (JNJ); McDonald's Corp. (MCD); Merck & Co. (MRK); Minnesota Mining (MMM); J.P. Morgan & Co (JPM); Philip Morris (MO); Procter & Gamble (PG); Sears Roebuck (S); Union Carbide (UK); United Technologies (UTX); Wal-Mart Stores (WMT).


Descriptor terms: lottery; poverty; investment; savings; economy;