

Mitochondria Learns to Invest #08
By Klarise Yahya, Apartment Loan Broker

Continued from last month...

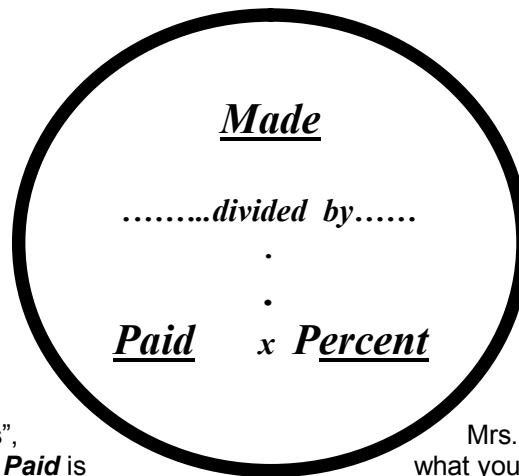
“How much income do you think you would need to be financially comfortable?” Mrs. Langerhorn asked.

I aimed high. I was making \$48,000 a year, but I allowed as how \$150,000 a year might be nice.

She didn’t blink an eye. “Then you would need to have \$3,000,000.”

This was getting silly. How could she do that in her head? I waited for her to volunteer the information, but when she didn’t I had to ask. “How did you do that?”

“It’s the Capitalization Matrix.” She reached for a napkin and got out her eyebrow pencil. I watched as she drew a diagram on the paper.



“Here is how it works”, is your annual net cash flow. ***Paid*** is ***Percent*** is the interest or capitalization rate.

Mrs. Langerhorn said. “***Made*** what you pay for the investment.

“If you want to find out how much you should pay for something (“Paid”), you put the net cash flow (“Made”) in your calculator. When you go from Made to either Paid or Percent, you cross the *dividing line*. Do you see it? When you cross the dividing line, press the Divide button on your calculator. Now put “Percent” (always as a decimal!) in your calculator and press “Equals”. What you will see in your display is the price that will give you your selected return at the given net income.

“Let’s try an example. Let’s say you know an investment will give you \$1,000 a month cash flow, and you want that to represent a 6% return on your investment. *Annualize the income* and put \$12,000 into your calculator as “Made”.

“Look at the matrix. When you travel from “Made” to “Percent”, you cross the dividing line, so you must press the Divide button. Now put 6% in your calculator. Enter it as (point) 06. Press the “Equals” button. How much is that \$12,000 annual stream of income worth to you if you want it to represent a 6% return on your investment?”

I’d put the numbers in my calculator as she was talking. Now I read the answer off. “\$200,000”, I answered.

“That’s right”, Mrs. Langerhorn said. “Now, let’s do another example. This time, let’s say you are offered an investment that promises \$850 a year in cash flow. The seller wants \$6,000 for it. If you bought it, what would be your yield?”

She continued, “Put “Made” (\$850) in your calculator. You cross the dividing line, so you press the Divide button. Put “Paid” (\$6,000) in your calculator and press equals. What is your yield?”

"14%", I answered.

"Correct. Now, let's try another problem. Assume you can buy an apartment building for \$1,000,000 cash. You have been told that the building is offered at an 11% capitalization rate. If that is true, how much cash flow could you expect to put in your purse that first year?"

I did the problem myself. I put \$1,000,000 ("Paid") in my calculator, pressed the Multiply button because to get from the "Paid" section to the "Percent" section I had to cross the multiplying line. I put in (point)11 for my "Percent". Then I pressed Equals and got \$110,000.

Mrs. Langerhorn again asked me how much annual income I would like to have when I retire. I repeated, "\$150,000".

Mrs. Langerhorn looked pleased. "Alright", she said, "now figure out yourself how much you must have to retire on \$150,000 a year if your money could safely earn 5%."

I put \$150,000 ("Made") in my calculator. I crossed the dividing line so I pressed the Divide button, then I put (point) 05 ("Percent") in the calculator and pressed Equals. Right there it said \$3,000,000. So now I knew how she pulled that figure from the air a little while ago.

"But still, do you think I will ever have the \$3,000,000 I need to retire?"

She thought a moment, then responded "Do you remember when we discussed the futility of attempting to raise oaks without the benefit of acorns? That was fairly early in our series of teas. Well, we're at the point when I must again ask you how much money you have to invest."

I really had been saving. Since I'd paid off my debts I'd put away the original \$600 each month plus I'd been saving the \$556 I was no longer paying on my debts. I was also saving the amount of my raises. And one of my great aunts had passed away and left me with some money. I had no debts and there was \$25,000 in the bank.

"So you want to know how long it might take for you to turn \$25,000 into \$3,000,000?" Mrs. Langerhorn asked. "How old are you? You're 29 now, aren't you? And you want to retire when you're 65? Then you have 36 years to invest. To turn \$25,000 into \$3,000,000 in 36 years, you have to average between a 14% and 15% annual return".

I was getting weary of her mathematical games, but I did the same thing I always did. I waited. She waited longer. Finally, I crumbled. "How did you do *that*?"

She smiled, acknowledging her little victory, then she said "Oh, it's simple enough. I just figured out how many times your money had to double to reach \$3,000,000. I did it while you were getting the cream. Twenty-five thousand dollars turns into \$3,000,000 in seven doublings. After one doubling, \$25,000 turns into \$50,000. Another doubling and it becomes \$100,000. Then \$200,000. Then \$400,000. Another doubling, and it's \$800,000. Then \$1,600,000, and after seven doublings, it's \$3,200,000. That's close enough. I did it on my fingers."

"But isn't it hard to double your money? Even once, let alone seven times!"

"The universe doesn't care how much money you wish to double. It could be one dollar or \$1,000,000. In many ways, it's easier to double one million dollars, because if you have \$1,000,000 you can buy a hamburger and it's not all gone. Basically, you have more options with the larger sum.

She continued, "All the universe cares about is how long you want to take doing it. If you understand that Time is the most important element a Young-Investor-in-Training has in her favor, you can accept the fact that nobody cares how much or how little you have to begin with, as long as you at least have *something*. Time (and compounding) offsets limited initial capital."

"So how did you know I'd have to make between 14 and 15%?" I asked.

"You know how we computed that your money has to double seven times? We did that on our fingers, remember? If you have 36 years to double your money seven times, how many years do you have for each doubling?" I could tell that Mrs. Langerhorn suspected the math might be beyond me.

I rose to the occasion. "Seven goes into 36 years about five times. I have to double my money every five years!"

"Exactly!" Mrs. Langerhorn beamed. "Now, this is where the Rule of 72 come in. *The number 72 is a constant*. If you want to know how many years it will take to double your money at a given compounded rate of return, you just divide the yield into 72. For example, if you were confident that you could get 4% interest and wanted to know how long it would take for your

money to double, you would divide 72 by 4 and learn that your money would double every 18 years. You divide interest into 72 to get the years required to double your money.

"If you knew that you wanted to double your money every 10 years, you would simply divide 10 (years) into 72 (constant) and discover that you would have to make 7.2% compounded annually. You divide years into 72 to get the interest required to double your money in the selected period.

"In your case, since you know you will have to double your money every five years, how much must be your rate of return?"

I got my calculator. "Let's see", I said, "seventy-two divided by 5 is ... 14.4%!"

"So now you know how to answer your own question", Mrs. Langerhorn smiled. "And you know that you will have \$3,000,000 when you retire if your \$25,000 makes 14.4% a year and you let it compound."

I thought about it for a moment. "Then why", I asked, "are there so many poor people?"

Mrs. Langerhorn didn't even pause. Evidently, she'd thought about this before. "If you are rich, it just means that you have made more good financial decisions than bad ones. Poor people make more bad financial decisions than good ones."

I asked her, "What's the difference between good and bad decisions?" I wasn't being difficult. I really wanted to know her thoughts.

"Didn't we discuss this some time ago? I thought we did. Good decisions," she continued, "move you closer to your goal. Poor decisions don't." That means that you must know what your goals are. If you have no goals, it doesn't make any difference what decisions you make.

"It's important to make the best choices you can. Sometimes that's as simple as just doing what you know you should. Think back over your life. Have you ever had opportunities that you declined? You talked to your girlfriends when you knew you should have been studying for the Chemistry test, and you consequently got poor marks on the exam.

"That botched exam resulted in a low grade for the course which reduced your GPA below the threshold for acceptance to your first choice colleges.

"Finally, a State school reluctantly accepted you. But that school didn't offer the Semester-in-Europe you wanted so much. So you didn't marry Jacques, who rose to own the largest chain of supermarkets in Europe."

"All that", I laughed, "because my girlfriend called?"

Mrs. Langerhorn wasn't amused. "All that, and more. Clearly, the story was fanciful. But it was only to illustrate that wonderful alternative futures can be lost because we don't do today what we know we should.

"Do you want another example?" Mrs. Langerhorn continued. "What if you had saved \$25,000 and invested it ten years ago? And it got that 14.4% return we've talked about? How much better off would you be when you're 65?"

I took the chance to show off a little bit. I wanted her to know I was as smart as she was. I did the math in my head. If \$25,000 doubled every five years and I'd kept it for ten years – that's two doublings – then I'd have \$100,000 more. I told her my answer.

"No, no", she responded. "You would have \$9,000,000 more! If you had the time to let your money double two more times, your \$25,000 would have grown to \$3,000,000 in seven doublings, but in eight doublings it would have grown to \$6,000,000, and then on the ninth doubling it would reach \$12,000,000. Waiting that ten years to invest cost you nine million dollars at age 65." **Continued next month ...**

Klarise Yahya is a Commercial Loan Broker. If you are thinking of refinancing or purchasing five units or more anywhere in the U.S.A., Klarise Yahya can help. Find out how much you can borrow! For a complimentary mortgage analysis, please call her at (818) 500-9966.