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The M.A.T.R.I.X.: Optimal Sequencing of Student Loan Debt Paydown

### Announcer Introduction

You're listening to REACHMD. Welcome to our feature on "The M.A.T.R.I.X.: Optimal Sequencing of Student Loan Debt Paydown," brought to you by TGS Financial Advisors, the wealth management firm that is committed to improving lifetime financial outcomes for physicians and their families. Here is your host, Dr. Jennifer Caudle.

Dr. Caudle:

Today, we are going to talk about how young doctors can use financial best practices to significantly enhance their lifetime accumulation of wealth. Joining me today is Jim Hemphill. Jim has been a Certified Financial Planner for Professionals since 1982, and he has received his Certified Investment Management Analyst designation after studying at the Wharton School of Business. He is cofounder of TGS Financial Advisors, and he also serves the firm as Managing Director and Chief Investment Strategist. Jim is a graduate of Swarthmore College, and he specializes in complex wealth transfer and retirement transition strategies.

Jim, welcome to the program.

Mr. Hemphill:

Thanks very much. Great to meet you.

Dr. Caudle:

So, let's set the table. Young physicians are coming out of school; they're starting practice with, on average, \$185,000 in debt. How can we help these young physicians?

Mr. Hemphill:

It's a great question. Before I answer directly, let me just provide a little bit of context. So, talking to older physicians -- my own personal doctor, for example -- from the 1960s with the passage of Medicare through the 1980s, late '80s, maybe early '90s, the financial winds were at physicians' backs. Incomes were going up across the board. It was really a good time economically for the medical profession. And since then it's become more challenging. Reimbursements are down, and so you no longer have that excess income that allows you to recover from a financial mistake.

So, the two things I would tell young physicians as a result of that is, first of all, you don't have time to make a mistake, and you also don't have time to wait before you start an intentional savings program. And the second thing is that you want to be as efficient and you want to really optimize your savings and debt paydown strategy in order to get the most bang for every buck that you put away.

Dr. Caudle:

That makes a lot of sense. So, what is MATRIX-driven decision-making?

Mr. Hemphill:

So, MATRIX is an acronym that we created to help doctors to understand the principle of directing every savings or debt paydown dollar to the place where it will have the most impact. Matrix stands for maximize, after tax, risk-adjusted return. So, X is the return, because the return is variable between different kinds of opportunities. And we put that in context with just looking at the balance sheet and

calling the balance sheet the Opportunity Set, because what we want the physicians to do is to think about all of their different balance sheet characteristics as competing for those scarce savings dollars.

Dr. Caudle:

Okay. Well, I guess a question that many might ask, myself included, is: Don't we do that already?

Mr. Hemphill:

So, the MATRIX principle is about being very, very intentional, and the reality is that most of us don't do that, and unfortunately, physicians in particular don't do that. The physicians are, above anything else, very busy; they are very focused on medicine. So, what we tend to see is a little bit of everything. We tend to see, for example, "I heard an interesting investment idea around the water cooler, and so I'm going to put a few dollars into that. And I have a mortgage, and I think maybe I'll prepay the mortgage a little bit. Then I want to put a few dollars toward the student loans, so I'm going to do a little bit of this, a little bit of that." And it really isn't systematic at all.

Dr. Caudle:

What does a MATRIX plan look like?

Mr. Hemphill:

So, with a MATRIX plan, we start with the balance sheet, which we renamed the Opportunity Set, and then we take that information and we present it graphically. So on the screen is an example. What you can see is that there are different opportunities at different interest rates, and we want to pay close attention, obviously, to the after-tax interest rates, and we also want to pay close attention to whether a given opportunity is risk-oriented or not. So, just to give an example, you might get 5.8% or 6.8% risk-free paying down a student loan, but if we assume that the stock market, for example, would return 5% and you're going to do that with after-tax money in a taxable account, that's going to be a lower rate of after-tax return and it is risk-oriented, so way less attractive.

Dr. Caudle:

What's an example of a common financial behavior that really conflicts with this MATRIX principle?

Mr. Hemphill:

So, one of the things... I'll tell a story about a presentation we did the other day. We're in front of mostly a group of young physicians, but a couple of older attendings there as well, and I asked the question -- we were talking about houses -- and I asked the question: How many of the older doctors here were told that you should always finance your house with a 15-year or shorter mortgage? And every one of their hands went up. That was just a truism back in the day. My first mortgage was at 13.2%. But today, a 30-year mortgage is less than 4%. So, if you look at a 4% mortgage that is tax deductible and you compare it to a 5.8 or 6.8% student loan -- 6.8%, usually, for a physician -- that is not tax deductible, it really doesn't make sense to shorten the mortgage period, which simply means you pay down principal more aggressively, and earn less than 3% after tax on the money you're paying toward the mortgage when you could be earning 6.8% risk-free after tax by paying down the student loan, so that's a real good example. In today's environment you really want that 30-year mortgage and not the 15.

Dr. Caudle:

It makes a lot of sense. If you're just tuning in, I'm your host, Dr. Jennifer Caudle, and today we're talking about optimal sequencing of debt paydown and how investing can improve your lifetime financial outcomes with our guest, Jim Hemphill, from TGS Financial Advisors.

So, how important is this? Really, if I'm saving reliably, isn't that really the key to financial independence?

Mr. Hemphill:

So, saving absolutely is the key, and there are no miracles that financial advisors have available to deploy that will make up for simply under saving, but optimizing sequencing can really be pretty powerful, and I think the best way to illustrate that is with an actual example. So, let's take the example of a little bit of everything. We have the 15-year mortgage. We have some prepayment of student loans. We have some after-tax investing every year. And what we're using is we're using an example of a physician with a \$250,000 income who is saving 20% of their money in the little bit of everything example. So we track that and we look at that and say, okay, what we end up with here is we end up with \$2.6 million terminal value, what we call functional net worth, and that's essentially all of the investment assets minus any debts, and in this case the debts all get paid down. And you look at that and you say, well, that's pretty good. I mean, \$2.6 million is a better than a sharp stick in the eye. Can I really do better just by changing the order of things?

So, what we do in the second example is we control for consumption. So in both of these cases we're going to have the same exact to-the-dollar annual consumption. The effective savings is actually higher in the second example, what we call the MATRIX example, because we're taking fuller advantage of pretax savings, which may have a match and also has tax savings.

So, cut to the chase and you look at the numbers, the MATRIX strategy with exactly the same consumption ends up with a \$3.7 million terminal value instead of 2.6, so you've picked up \$1.1 million simply by being intentional, deliberate, about the sequence with which you pay down debts and where you direct your investment dollars.

Dr. Caudle:

So without getting into the formal MATRIX planning process, are there any practical suggestions that you could offer our ReachMD listeners?

Mr. Hemphill:

So, the first is simply if you're not saving enough, if you're spending too much, you're going to be in trouble. And there is sometimes the sense that, "Well, I am behind compared to my peers in terms of consumption, so I'll put the savings off until the future." And just the economics of that, because of the time value of money, doesn't work. So, the first thing is save enough. The second thing is prioritize pretax savings, your 403(b), your 401(k), and then beyond that, make sure that you're following optimal practice in terms of the sequencing of what you're doing. Once you have that conceptually in place, what we find works much, much better is making it automatic. So pretty much any of us today can take earned income and have a portion of it directed to each of several different accounts, so the first thing you do is your pretax, you maximize your 401(k), maximize your 403(b). But if you're doing after-tax savings, which I certainly hope you're going to do, direct all of your savings dollars to one specific account that you use for no other purpose, and then have payments come out of that account automatically every month directed to and prioritized to your highest return after-tax opportunity, and just have it all happen automatically before you even see the dollars, and that works really, really well.

Dr. Caudle:

So, are there any last words that you have for your listeners?

Mr. Hemphill:

So, what I would say is today's physicians really face unique challenges. They're starting later. They have more debt. It is a more difficult economic environment. So starting earlier is really very, very powerful, and following best practice, what we call MATRIX principles, is really an enormous advantage, something to take advantage of.

Dr. Caudle:

Jim, thank you so much for being here and sharing your perspective with our ReachMD listeners.

Mr. Hemphill:

Thank you. It's been a pleasure.

### **Announcer Close**

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