CALAMOS®
WEALTH
MANAGEMENT

FAMILY MATTERS

Insights on key topics—
through a multi-generational lens.

TOPIC:

HOW TIME CAN WARP MONEY

**Whether adult or young child – we have all been there:
I can have my reward right now and be very happy.**

Or, if I wait ... my reward will be even greater and I will be extremely happy.
"I'll have it now, please!" This installment of *Family Matters* explores the cognitive bias toward immediate gratification and its impact in shaping the financial future for ourselves and for those we care about.

We created the *Family Matters* insight series to spark ideas and spur conversation among family members on a wide range of important financial topics. They're purposely written as a primer for more in-depth discussions with your Calamos Wealth Management advisor on how the matters presented will apply to you and your family's unique situation. We hope you find that the multi-generational lens by which topics are presented promotes pass-along readership to multiple family members. Your Calamos Wealth Management advisor is available to all members of your family to provide guidance on matters you care about most.

Glenn and Claire have their hands full raising twin boys in suburban Chicago. Glenn's a great husband, father and successful serial restauranteur —his creativity combined with Claire's business acumen is why their fourth restaurant in the Chicago area is booked solid, five weeks ahead of the opening. But, if Claire has one complaint, it's that Glenn doesn't want to focus on their long-term finances. He would much rather buy a $12,000 imported wood fire pizza oven than take out college 529 plans for the boys or an IRA for him and Claire.

Hyperbolic Discounting and Self-Awareness

Our subject, Glenn isn't irrational, uncaring, or selfish – he's simply human. As humans, we have a psychological predisposition for immediate gratification. In most life matters, instinctual impulses don't lead to terribly negative consequences. However, in matters pertaining to managing finances, the impulse to achieve short-term gratification can lead to some very dire, future financial consequences. Or, conversely – suppression of impulses can lead to great future reward.

When we look to the future, we tend to assign or see the greater value of our actions. However, in the short-term, our decision-making comes under the influence of what behavioral economists refer to as hyperbolic discounting; a cognitive bias in which an individual shows a preference for a reward that arrives sooner over a reward that arrives later. Glenn certainly values college educations and a comfortable retirement, but when faced with the awe of the lastest new food trend --- he discounts the value of a college 529 plan or IRA. Claire, however, sees things differently. And, together, with some thoughtful and rational discussions with their financial advisor, Glenn will make decisions that may lead to more productive outcomes for the family.

Nature vs. Nurture: A behavioral foundation for children of the wealthy?

For fifty years the marshmallow experiment was gospel in the social sciences. It seemed intuitive: Kids who could forego immediate gratification grew up to be higher achieving teens and adults because—it was thought—they were more disciplined and thoughtful by nature.

But a new study new study published by researchers Tyler W. Watts, Greg J. Duncan and Haonan Quan raises serious questions about the validity of the original. Using a larger sample and paying closer attention to the background of the subjects, it found that socioeconomic status was a strong predictor of children delaying gratification to get an extra treat. (Kids from less affluent homes, it seems, may be less confident in their future needs being met, so they would often eat the treat in hand.) And, higher economic status is, the researchers noted, a well-documented predictor of high achievement.

So what's that mean for children in affluent households? Perhaps it means there's a very solid foundation for parents to nurture good habits and teach them to avoid the trap of immediate gratification.

Kevin Crouch, an Investment Analyst and member of the investment team at Calamos Wealth Management, says "One big reason it's hard for people to save for retirement or other long-term goals is the tendency to assign more value to smaller, more immediate rewards, than larger, future rewards."

$$V(A,t) = A * \frac{1}{(1+rt)}$$

Formula: Story, Giles W. et al. "Does Temporal Discounting Explain Unhealthy Behavior? A Systematic Review and Reinforcement Learning Perspective." Frontiers in Behavioral Neuroscience 8 (2014): 76. PMC. Web. 29 May 2018

Crouch, who is pursuing an advanced degree in predictive analytics points out that there is a mathematical formula to model how investors will discount an award the further into the future it is, where V is the present-time value, A is the utility, t is time and r is the discount rate.

But, Crouch says you don't have to be a math major to understand the concept of hyperbolic discounting.

"Whether it's young adults failing to enroll in their 401k or middle-age people who keep telling themselves they're going to going to create that donor-advised fund for the benefit of their alma mater -- when putting the future in the context of : "one of these days," people always intend to do the right thing," says Crouch.

Tom Kukulski, a Senior Wealth Advisor with Calamos Wealth Management in Naperville, Ill., agrees. He says following through on intentions is one reason many people seek out the assistance of a personal trainer. "Lots of my clients are pretty sophisticated when it comes to their finances, but, in terms of their tendency to become distracted – they're acutely self-aware. They know they need a sounding board and look to me to help them course-correct from time-to-time to keep them on the long-term plan we've created together."

The Other Side of the Marshmallow

Claire wishes her father, Dan had enjoyed more reward during his lifetime. He toiled for four-and-a-half decades in the accounting department of a regional bank in Detroit. Dan "took the package" at age 59 when the bank was acquired, leaving him sitting on a fortune in cash and stock. But, nothing changed when he retired: He kept the same routine, driving the same rusty sedan and living in the modest ranch house, notwithstanding her mother's dream of living in a warmer climate.

Mark Sagen, Senior Investment Consultant with Calamos Wealth Management in Naperville, IL has seen plenty of hyperbolic discounting in his career. However, he's also seen the converse—clients who did all the right things and amassed considerable wealth, but failed to enjoy it while they could.

Figure A

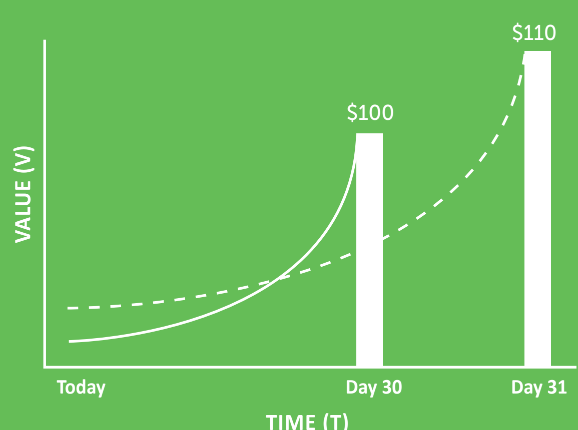

Figure A is a graphical illustration of a decision between receiving $100 in 30 days or $110 in 31 days. Today, we would optimally choose to receive $110 in 31 days as it is more valuable and both choices are far enough into the future that any time delay between the two choices (in this case, one day) is essentially insignificant. However, as time progresses closer to day 30, the time delay between the two choices becomes more relevant and our subjective value of $100 overtakes that of $110. On day 30 we are asked to choose between $100 today and $110 tomorrow. By way of hyperbolic discounting, most individuals would actually elect to receive $100 immediately than waiting one more day to receive $10 more.

One of the pitfalls of not crafting and occasionally updating a comprehensive financial plan, Sagen explains, is never really knowing how secure you actually are in retirement. Absent that visibility, he says, retirees sometimes do the opposite of hyperbolic discounting for fear of running out of money or not having much left to leave for their kids. Still, even when they have done their homework and implanted a solid plan, Sagen says he sometimes has to gently push certain clients to indulge themselves: "I know that leaving something substantial behind is important to a lot of people, but sometimes I'll tell them, 'Go ahead and get the upgrade. You've earned it. If you don't fly first-class when you can, your kids will fly up front when you can't."

Stripping away the fancy science and technical terminology, hyperbolic discounting comes down to innate human behavior. Some individuals are more susceptible to its power to under-value larger future award. But, by having a plan and a professional by your side – behavior can be modified and value put into its proper context.

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