March 31, 2018 Letter from Linda

Every so often, I run across a story about a former star football player who has filed for bankruptcy or is in financial distress. It is remarkable that someone with eight-digit career earnings did not set aside money for the future, did not invest it, and did not plan for his long retirement. A football player's career is short and retirement can last 40-50 years or longer.

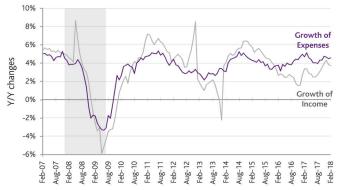
The typical football player lasts in the NFL for six years and earns over \$3 million, more than an average college graduate earns during his entire career. Of course, when you are in your early 20s, earning a multimillion-dollar paycheck, your mind is likely focused on everything else but saving for retirement. While top athletes may be an extreme example, over-spending and under-saving is not a behavior limited to them. Most people tend to do it and, as a result, sooner or later it negatively affects their lifestyle. Regardless if you're making millions or not, we believe that saving for the future should always be a priority.

Over the past few years, notwithstanding a volatile political and trade climate, the American economy has been doing well. Employment and household finances have improved and, as a result, Americans have become more optimistic about their future. With consumer sentiment at multiyear highs, rising property prices, and easy access to cheap credit, consumer expenditures have increased and saving rates have plunged.

For the past two years, the annual growth of expenditures has been outpacing the growth of incomes. The savings rate has declined significantly from an already low point relative to long-term averages, to a current level of 3.4% per year. In December 2017, we hit the lowest savings rate in over a decade and are near the lowest savings rate since at least the late '50s.

## **Expenses Have Been Growing Faster Than Incomes...**

## Personal Income & Expenditures



Source: U.S. Bureau of Economic Analysis via the Federal Reserve Bank of St. Louis. Note: Shaded periods indicate recessions.



## ... While Savings Are Near Multidecade Lows

#### Personal Savings Rate



Source: U.S. Bureau of Economic Analysis via the Federal Reserve Bank of St. Louis.

Note: Shaded periods indicate recessions.

For those who already have some adequate savings, it may be fine to temporarily lower their savings rate. However, recent data shows that most Americans have saved very little. A third have no money in their savings accounts, and another third have only a few hundred dollars set aside.<sup>2</sup>

Looking at retirement savings, the situation is even worse. Despite the large availability of tax-incentivized IRAs, nearly half of working-age families

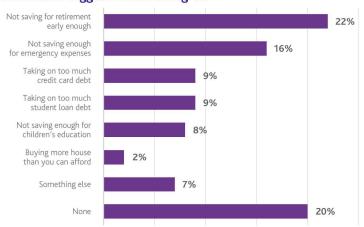
As measured in year 2000 dollars. National Bureau of Economic Research: Bankruptcy Rates Among NFL Players with Short-Lived Income Spikes, April 2015.

<sup>&</sup>lt;sup>2</sup> GOBankingRates.com, survey from 2016.

# Letter from Linda

(those between ages 32 and 61) have no retirement account savings at all.<sup>3</sup> Those approaching retirement (ages 56-61) have a median retirement account balance of \$17,000, an amount vastly insufficient to provide lasting comfort once retired. While for some families saving may not be an option at all, many others can afford to regularly set aside a portion of their incomes. Yet, most don't or save far too little, and, according to a 2017 Bankrate survey, they regret it later.

## Americans' Biggest Financial Regrets



Source: Bankrate.com, May 2017.

Savings can help us attain financial security and make it easier to maintain a stable quality of living in the future. In a way, saving money is similar to preventive health care. Just like regular brushing and dentist checkups can reduce the chance of cavities or more serious dental conditions, savings can help us reduce the chance that our financial welfare deteriorates.

There are a number of factors that could cause our future financial stability to deteriorate. Some are more predictable than others, but having adequate savings can help us largely mitigate their impact. Some of these factors are discussed below.

• Future cost of living – The prices of goods and services we pay today are likely to be higher tomorrow. Over the past 20 years, the average annual change in prices (inflation) has been 2.18%.<sup>4</sup> While this figure may seem low, it is important to understand that it cumulates to a very substantial number over longer periods. At this rate, in five years prices would rise by 11%, in 10 years – by 24%, in 20 years – by 54%, and in 30 years – by 91%. If the annual inflation rate is higher, as it was before the mid-90s, this would mean things would be even more expensive in the future.

#### While Annual Inflation May Seem Low...

#### Annual Inflation

12/1959 - 3/2018



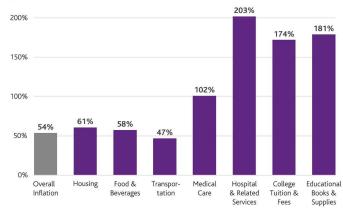
Source: Bureau of Labor Statistics via the Federal Reserve Bank of St. Louis

Furthermore, certain categories, like medical care and education, have experienced significantly higher rates of price increases over the past 20 years, as shown in the chart below. For example, if college tuitions keep increasing similarly to the past 20 years, a one-year tuition of \$35,000 today will cost about \$58,000 in 10 years and almost \$100,000 in 20 years.

#### ...It Adds Up

#### Cumulative 20-Year Price Increases (Inflation) of Select Categories

3/1998 - 3/2018



Source: Bureau of Labor Statistics via FactSet. Based on non-seasonally adjusted price indexes.

Older Americans tend to experience even higher levels of inflation because their spending shifts towards categories that historically have

<sup>&</sup>lt;sup>3</sup> Economic Policy Institute, Retirement Inequality Chartbook, 2016

<sup>&</sup>lt;sup>4</sup> According to data from The Bureau of Labor Statistics.

March 31, 2018 Letter from Linda

above-average inflation rates, such as medical care and hospital services.

- Retirement For most people, retirement is inevitable and so are the costs that come with it. Those who have not saved enough and think that they can postpone retirement to work a little longer may be disappointed. Survey data<sup>5</sup> shows that people tend to overestimate when they are going to retire. Currently, the average age at which people expect to retire is 65, while the actual average retirement age is 62. Most often, people retire earlier than intended due to unexpected hardships like health issues or disability, having to care for a family member, work-related issues, and skill obsolescence. Overconfidence in the ability to delay retirement may lead to underestimating one's savings needs and a lower standard of living during retirement.
- Longevity The average life expectancy in the U.S. has been steadily rising for decades and, with advancements in health care and technology, we should expect this to continue. According to estimates by the Social Security Administration,<sup>6</sup> about one of every four 65-year-olds today is expected to live past age 90 and one out of 10 to live past 95. In addition, for couples at 65 there is a 48% likelihood that at least one spouse lives to age 90 or beyond. For those planning to retire at 65, spending 25 or 30 years in retirement is not unrealistic.
- Social Security benefits The Social Security program was intended to provide some economic stability in case of job loss or disability, and upon retirement. For most Americans, the program cannot provide enough to maintain their standard of living during retirement. According to estimates by J.P. Morgan, households with pre-retirement annual incomes of \$100,000 can currently expect to receive about \$40,000 per year from social security during retirement. They will have to provide almost as much (\$38,000) from personal savings if they were to maintain their pre-retirement lifestyle. Households with higher incomes will need to provide an even higher percentage of the post-retirement expenses from their own savings. In the future, the required savings may be even higher. According to their latest projection, the Social Security Board of Trustees expects that after 2035, the program will be able to pay for only 76% of scheduled benefits due to rising cost and depleting reserves.
- Unexpected expenses Just like stink bugs, sooner or later unexpected expenses show up at everyone's door. Having savings in an emergency fund can not only reduce the stress of an emergency situation but also prevent costly borrowing from retirement savings or credit cards.

Having adequate savings can help us meet goals, like buying a house or paying for college, and provide for necessities, like health care. Saving is the first and most important step and investing your savings may help you achieve your goals more easily.

# Time and The Power of Compounding

Saving can be made significantly easier with the power of compounding. When savings earn returns (e.g., bank interest, dividends), the principle of

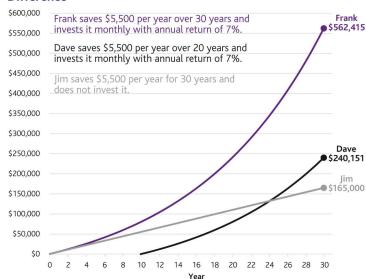
compounding allows those earnings to earn even more earnings. Over time, this effect snowballs, and earnings grow at an increasingly faster rate. The power of compounding could offer a tremendous advantage to those who start saving and investing early, as the chart below shows. In this example, we compare the long-term savings of three people with different saving behaviors:

- Frank contributes the maximum of \$5,500 per year in his IRA and invests these savings over 30 years, earning 7% annualized return.
  Frank takes full advantage of time and interest compounding.
- Dave saves and invests just like Frank but starts 10 years later. Dave takes advantage of time and compounding, but over a shorter period.
- Jim saves exactly like Frank but does not invest the savings and takes no advantage of interest compounding.

For purposes of this example we use an annualized return rate of 7%. We believe this is a reasonable rate of return over a 30-year period, given that since 1960, the S&P 500 Index has returned about 10% annualized, including dividends.

At the end of the 30 years, the differences in value between the three accounts are staggering. While Frank accumulated over half a million dollars, Dave accumulated less than half of that, and Jim less than a third. Although Frank saved only \$55,000 more than Dave, his ending balance is larger by over \$320,000. The longer time allowed for interest compounding is what accounts for the difference. If Frank had not invested any of his savings, his ending balance would match Jim's. The difference between Frank's and Jim's balances is entirely due to compound interest.

# Compounding Over the Long Term Makes a Significant Difference



Source: BAMCO, Inc.

Note: Calculations are based on equal monthly investments and monthly interest compounding. The analysis is not based on any specific investment and does not reflect the potential effects of taxes or fees. This chart is for illustrative purposes only.

<sup>5</sup> Employee Benefit Research Institute, The 2016 Retirement Confidence Survey, March 2016.

<sup>6</sup> https://www.ssa.gov/planners/lifeexpectancy.html

J.P. Morgan Asset Management, Guide to Retirement 2017

# Letter from Linda

#### Tax Incentivized Saving and Investing

Compounding is great, but tax-deferred compounding is even better. Saving and long-term investing have long been encouraged by the U.S. government and legislators in the form of tax-incentives. Designated retirement accounts, like 401(k)s and IRAs, allow a portion of current income to be earmarked as retirement savings that can be withdrawn in conjunction with retirement. Such accounts can offer two potentially significant tax benefits for accountholders. First, for contributions to these accounts,8 a portion of income taxes could be deferred until disbursements from the account begin. Until that tax is paid, it can compound at the rate of return of investment chosen for the benefit of the accountholder. Essentially, the government is giving you a tax-free ride until you start withdrawing money from your account. The second potential tax benefit is not immediately owing taxes on dividends/distributions - all such income is allowed to continue compounding tax free. For investments in stocks, this can result in a significant tax advantage, as historically the bigger portion of stock returns has come from dividends.

Tax-deferred accounts can also offer significant financial benefits to employers. Any contribution that an employer makes to an employee's qualified tax-deferred account is considered an operating expense and reduces the tax bill of the employer.

Aside from retirement, there are tax-deferred accounts that allow saving for other purposes. 529 plans and Health Savings Accounts are designed specifically to make saving for educational and health care expenses easier. Having the money to pay for college or medical services, when the time comes, goes a long way to provide comfort and financial stability.

Although tax-incentivized saving accounts are not equally available to everyone and their benefits vary from person to person, it would be unwise to leave their potential benefits unexplored. Unfortunately, most people who have access to such accounts do not take advantage of these tax-deferred opportunities. According to data from the Census Bureau, while 79% of Americans can take advantage of tax-incentivized retirement accounts, only 32% actually sign up for one. And it is fair to assume that from those who have signed up, only a fraction is maximizing the potential benefit.

#### We Are Our Worst Enemy When It Comes to Saving

Despite the large availability of tools and incentives, Americans are not saving nearly enough. Most people have inadequate savings not because they do not care about their future well-being but largely due to behavioral reasons.

Hyperbolic discounting, a natural cognitive bias, is a typical example. It refers to people's tendency to choose a smaller instant reward over a larger delayed reward. One example of hyperbolic discounting occurs when a person chooses to receive \$100 today over \$110 a year from now. Although the \$110 reward has a higher nominal value, that person has discounted it to something worth less than \$100 *right now*. To her, the time until satisfaction is too long and the delayed reward not big enough to make the wait worthwhile. If the same person was faced with a shorter time frame,

whether to take \$100 today or \$110 tomorrow, most likely she is going to take the \$110. As the reward gets further and further away, people tend to discount it at increasing rates. While the discount rate varies from person to person, everyone suffers from hyperbolic discounting to some degree.

Psychologists argue that our brains are hard-wired to want immediate gratification, even if it seems unwise. It may not be possible to become completely immune to this bias, but we certainly can try to control it. If we don't, we are bound to suffer some negative consequences later. Eating a piece of cake today and postponing dieting for tomorrow, or going out with friends instead of studying for class, or splurging on a \$200 dress that may go out of fashion in a couple of months instead of paying down your credit card debt are typical examples.

If you had an extra \$200, and if instead of buying a dress you put that money in your retirement account, that money not spent could be worth more than  $\$1,500^9$  in 30 years and be there when you need it. Similarly, if instead of dining out three times a month you go out only twice a month and invest the extra \$50 - \$100 in your IRA, you could accumulate roughly an extra \$60,000 - \$120,000 over 30 years, 10 which could make a significant difference on your retirement lifestyle. Because of hyperbolic discounting, few people actually consider the payoffs in such situations and do not set aside enough in their retirement accounts. Yet, small decisions like these can make a big difference over the long term. Of course investing does not guarantee positive returns, and individual investors may not achieve the annualized returns of 7% used in these examples.

Furthermore, partly because our brains are naturally wired to prioritize our short-term happiness, some people entirely avoid thinking about potential negative issues, like providing for an emergency expense or retirement. However, not thinking about such events does not make them less likely to happen. The future is not predictable with any certainty and we do not suggest overthinking it, but we believe it is better to try to prepare than not attempt at all. According to a recent study, 11 the majority of Americans (56%) have not attempted to figure out how much to save for retirement. In addition, nearly half of respondents do not have a household budget — a valuable tool when trying to save.

Even for people who realize the importance of saving and the benefits of compounding, planning ahead can be complicated. Estimating how much to save, how to allocate these savings among different investments, choosing an appropriate type of investment account, dealing with periodic rebalancing, evaluating risks, and tax implications can be overwhelming. Just like we cannot expect an investment advisor to learn how to perform a dental procedure, we cannot expect that a dentist becomes sufficiently educated about complicated investment matters to be able to successfully run her own retirement portfolio. Luckily, there is help. Registered investment advisors, financial advisors, certified financial planners, and other financial intermediaries can help navigate the complexities and alleviate the pain of saving for retirement or other goals.

Employers can also be helpful to their employees in saving for retirement via defined contribution plans. Offering retirement savings plans and guidance can be the difference between comfortable and stressful retirement.

<sup>8</sup> Pre-tax contributions are allowed only in non-Roth tax-deferred accounts.

Investment at 7.00% annualized return compounded monthly.

<sup>&</sup>lt;sup>10</sup> Monthly investments at 7.00% annualized return compounded monthly.

<sup>11</sup> FINRA Investor Education Foundation, Financial Capability in the United States 2016.

March 31, 2018 Letter from Linda

At Baron, consistent with our long-term approach to investing, we actively encourage our employees to save for the future. We maximize the amount that can be contributed to our 401(k) profit sharing plan. We make it easy for employees to invest their money by opening retirement accounts for them and setting up automatic paycheck deductions and direct funding. Although we don't allow our employees to invest in the securities issued by publicly traded companies to avoid conflicts of interest, we do allow them to purchase mutual funds and ETFs. We provide several different kinds of investment options they can elect. As part of our compensation structure, we also have retention plans and phantom equity plans which require that employees invest in the Baron Funds and keep the money invested while they are employed at Baron Capital. We have had numerous employees remark to us that they are pleased to have seen that money grow over time.

We encourage everyone to save. We encourage everyone to invest. And we hope if you do invest you will consider investing in Baron Funds.

Sincerely,

Linda S. Martinson Chairman, President, and COO

This material does not constitute tax, legal or accounting advice and neither Baron Funds nor any of its agents, employees or registered representatives are in the business of offering such advice. It was not intended or written for use and cannot be used by any taxpayer for the purpose of avoiding any IRS penalty. It was written to support the marketing of the transactions or topics it addresses. Anyone interested in these transactions or topics should seek advice based on his or her particular circumstances from independent professional advisors.

Investors should consider the investment objectives, risks, and charges and expenses of the investment carefully before investing. The prospectus and summary prospectuses contain this and other information about the Funds. You may obtain them from the Funds' distributor, Baron Capital, Inc., by calling 1-800-99BARON or visiting www.BaronFunds.com. Please read them carefully before investing.

Definitions (provided by BAMCO, Inc.): The S&P 500 Index measures the performance of 500 widely held large-cap U.S. companies.