

Lincoln Financial white paper

What I would do if I were retired



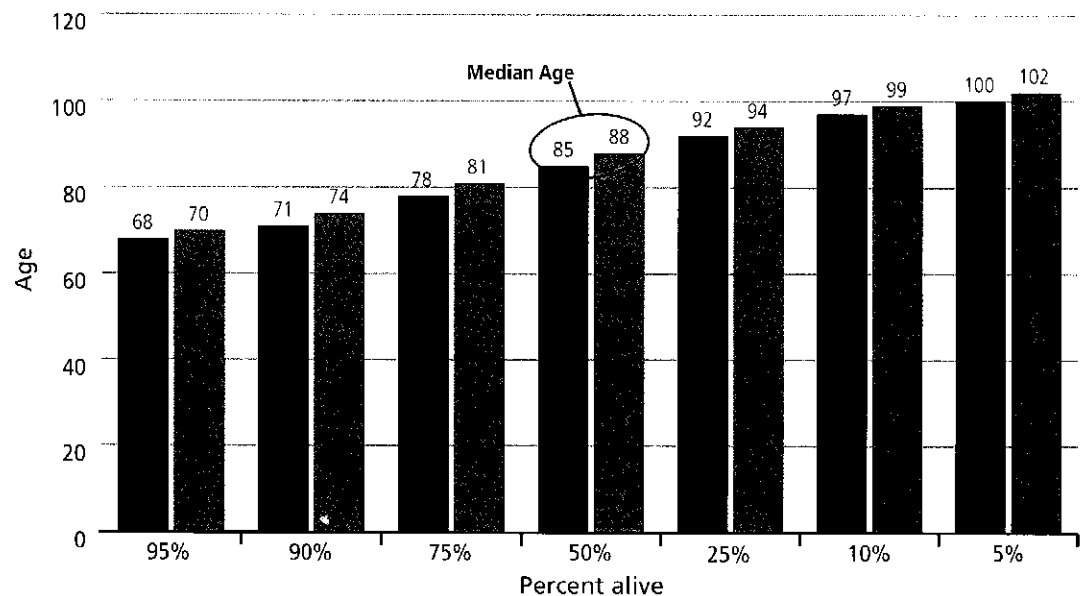
Dr. Richard Marston
Wharton School,
University of Pennsylvania

American retirees are reeling from the financial crisis. With stocks down 50% from their peak, many retirees have seen their retirement portfolios drop 20% or more. Their homes have also fallen sharply in value. The average home value in the United States is down about 30% off its peak, according to the S&P/Case-Shiller Home Price Indices. Now more than ever, retirees are looking for advice on how to live comfortably without running out of money. I'd like to discuss those challenges and propose some solutions.

The general challenges of retirement that I see

Even without the recent dramatic declines in the value of American's investments and houses, finances would pose challenges for retirees. It is difficult for them to budget and invest, especially now that Americans are living longer. The average 62-year-old man is expected to live to age 85, as shown in "Life expectancy of today's 62-year-olds" (Figure 1). One-quarter of his peers are expected to live until 92. Women live two to three years longer than men on average. But what's truly remarkable is the life expectancy figure for a married couple at age 62. The median age of death for the couple's **surviving spouse is 92 years of age**. That is wonderful news for Americans in or near retirement. But it's also dreadful news because they must make their resources last longer than they expected.

Figure 1. Life expectancy of today's 62-year olds



Source: Society of Actuaries and financeware

The potential for a very long life means that new retirees should invest for the long term and spend much less in a year than the likely annual returns on their portfolios. Once they quit working they should follow a "**spending rule,**" a rate of withdrawal from savings

that retirees and their advisors believe can be sustained in the long run. If a couple has \$1 million at retirement and believes they can spend 4% per year indefinitely, then they are following a spending rule of 4%. The appropriate spending rule will vary, depending on how they invest their wealth. If it's all in savings accounts at banks, then the spending rule must be lower than if it's in higher-yielding (but riskier) assets.

Risk should be a key consideration in how investors allocate their portfolios to sustain their standard of living. Investors face many financial risks in retirement. The two major types are market risk and inflation risk.

Market risk means that stock markets can fall sharply at times. It is almost inevitable that they will fall sometime during an individual's retirement. But if they fall early in retirement, this may have a devastating effect on future spending because their fall reduces the base to which the spending rule applies, as well as the base from which compounding occurs.

Inflation risk refers to the fact that inflation can raise the cost of living in retirement. Some inflation is inevitable in retirement, so most retirement plans factor this in. But there is always the risk that inflation will rise much more than anticipated, as in the mid- and late 1970s when inflation rose to double-digit rates.

People must balance many factors as they manage their money in retirement. This white paper considers retirees' concerns by asking:

- Is an all-bond portfolio a solution?
- If not, how should a diversified portfolio be allocated across stocks and bonds?
- Does a diversified portfolio make sense in a Bear market?
- Why should retirees stay invested in stocks?
- How can retirees adjust to the market downturn?

Why shouldn't I switch to bonds?

"Why don't I switch my investments to bonds alone?"

That's what many retirees are asking after the stock market's 50% drop. They wonder if bonds would shelter them from market turmoil while providing the "fixed" income that they need in retirement. It's natural after recent events that retirees should question the conventional wisdom of holding a diversified portfolio of stocks and bonds.

Bond-only portfolios may produce more reliable income, but they cannot support a high enough spending rule for most. Let's examine the spending rule an all-bond portfolio allows, assuming that *there is no uncertainty about future inflation*. That is, let's assume that we know for certain that *inflation will only average 2.5% per year for the next 30 years*. This unrealistic assumption will help us analyze how much spending the bond portfolio would allow.

Under this attractive inflation scenario, what spending rule would be sustainable if the retiree invested the entire portfolio in 30-year Treasury bonds with a coupon of 5.1%? Many retirees would spend 5.1%, which would be \$51,000 for a \$1 million portfolio. But that would be much too high because it doesn't provide for inflation. Even with inflation as low as 2.5%, the cost of living rises 28% in 10 years and over 60% in 20 years. So the \$51,000 would buy fewer and fewer goods and services as time goes by. The retiree would see his or her real spending ability decline significantly over time.

For the retiree to keep spending in line with the rising cost of living, the spending rule must be based on the real, inflation-adjusted return on the bonds. The real return on long-term Treasury bonds has averaged 2.6% over the 80+ years since 1926. To keep spending in line with inflation, the spending rule should equal this real return of 2.6%. In other words, retirees could only spend 2.6% of their income. For many people, living on only \$26,000 of the income produced by a \$1 million portfolio would not be feasible. But that's all they could afford, if they want to provide for increases in the cost of living. Americans are living too long to base spending on nominal returns that aren't adjusted for inflation.

Retirees should spend even more conservatively than described above if inflation is uncertain—which is surely true in the real world. Because inflation could potentially rise significantly above 2.5%, as it did in the 1970s, they should lower the spending rule below the expected real return on bonds. How much lower depends on their—and their advisors'—assumptions about the volatility of inflation as well as the expected real return on bonds during retirement.

Suppose the retiree wants to spend 4% or 5% of wealth per year in retirement. How can the retiree possibly do that if their bond-only portfolio yields only 5% or so in

nominal terms and only 2.5% or so in **real terms**? It's reckless to spend that much if the real return on bonds is likely to be close to the long-term averages. Accordingly, a bond-only portfolio will not provide a safe and secure retirement for most retirees because the returns are too vulnerable to inflation and too low compared to the long-term averages for stocks.

What type of portfolio can I create that might sustain a long retirement?

Since 1951, the real return on U.S. stocks, as represented by the Standard & Poor's 500 large-capitalization stock index, has averaged 6.5% annually—almost 4% higher than the return on bonds. This excess return on stocks is called the “equity premium.” Of course, this average real return of 6.5% is achieved by combining solid years of returns in excess of the average with Bear market years like 2008–2009.

Bear markets can inflict great harm on retirees who invest in stocks, particularly if they occur early in retirement. But stocks are necessary because their returns are, on average, so much higher than returns on bonds.

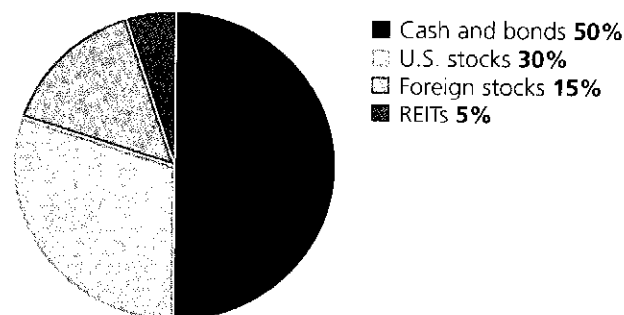
Given the need for stocks in long-term retirement portfolios, what percentage allocation makes sense at the beginning of retirement? There is no one answer for everyone, but many experts call for a 50/50 allocation between stocks and bonds. Such a portfolio should yield an average real return of about 4.5% in the long run. That's a lot better than the 2.6% average real return for a bond portfolio.

To minimize risk as much as possible, the stock allocation should be diversified among different types of stocks, including foreign and domestic stocks as well as large-cap and small-cap U.S. stocks. The more diversified the mix of stocks in the portfolio, the lower the risk over time. The retiree might also consider placing some of the stock allocation in investable real estate. For ordinary investors, REITs provide an easy way to obtain a diversified mixture of different kinds of real estate, including office buildings, malls, and rental apartments.

“Hypothetical Portfolio for Retired Investor” (see Figure 2) shows a sample 50/50 stock/bond portfolio for a retiree. The stock allocation includes 15% in foreign stocks and 5% in REITs. There is nothing special about this particular

allocation, but it does represent a diversified mixture of investments. The bond allocation should include cash holdings (in CDs or money market funds) available for current spending needs, as well as suitably diversified bond holdings.

Figure 2. Hypothetical Portfolio for Retired Investor



But does this portfolio make sense in a Bear market?

The honest answer to this question is **“of course not!”** If we could time downturns in markets, we would abandon this portfolio (temporarily) just in time to escape future losses. Consider what happened to this portfolio between the peak of the U.S. market in October 2007 and March 2009. Over this 17-month period, U.S. stocks fell 46.9%, foreign stocks fell 53.6%, and REITs fell a startling 63.4%. The 50/50 portfolio pictured in Figure 2 fell 21.5%. It would have been terrific to avoid this collapse in wealth. If only we were smart enough to time the market.

Let's put this market decline in perspective. How often do retirees suffer a similar experience? Over the 58 years starting in 1951, the S&P 500 delivered negative annual returns in 14 years. Given this frequency, retirees should not have been surprised that their stocks fell in 2008. But the magnitude of the decline in stocks should have been a shock. In 2008, the S&P 500 and the Russell 3000 all-capitalization index both fell 37%—the worst yearly return since 1951. Even the 50/50 stock/bond portfolio described previously would have fallen by 16.9%, making 2008 again the largest one-year loss.

An investor in this paper's hypothetical 50/50 stock/bond portfolio would have suffered a loss in 11 of the 58 years

since 1951.¹ But in only one year—2008—did the investor lose 10% or more. So in some sense 2008 was a perfect storm, a combination of events that produced unusually powerful negative consequences. However, that’s not much consolation to the unlucky fisherman caught in the storm.

What about the bad markets of 1973–74 and 2001–2002? The 50/50 balanced portfolio lost 14.0% in the former period and 5.1% in the latter. These losses are pretty serious, particularly the loss in 1973–74, but they are also quite unusual.

For retirees experiencing a perfect storm, the rarity of recent losses offers cold comfort. But they should pay attention to another lesson from the period since 1951: Historically, portfolios have rebounded nicely at the end of a recession.

What is my reward for staying invested?

History suggests that retirees will be rewarded for sticking with stocks because stocks have recovered when the economy turned around. “S&P 500 rallies after recessions, 1951–2003” (Figure 3) illustrates the stock market’s handsome post-recession gains.

Figure 3. S&P rallies after recessions, 1951–2003

Recession (NBER dating)	Market bottom	Gain in first 12 months
July 1953–May 1954	Aug 1953	35.0%
Aug 1975–Apr 1958	Dec 1957	43.4%
Apr 1960–Feb 1961	Oct 1960	32.6%
Dec 1969–Nov 1970	Jun 1970	41.9%
Nov 1973–Mar 1975	Dec 1974	37.2%
Jan 1980–Jul 1980	Apr 1980	31.2%
Jul 1981–Nov 1982	Jul 1982	59.4%
Jul 1990–Mar 1991	Oct 1990	33.5%
Mar 2001–Nov 2001	Feb 2003	38.5%

The market trough is determined by the lowest monthly average of daily prices for the S&P 500 Index, (Prior to 1969, lowest end-of-month price is used). Indexes are unmanaged and unavailable for direct investment.

Data source: S&P

There are two patterns in the nine recessions since 1951.

- 1 The stock market **soars** in the first 12 months after it hits bottom. In every recession since 1951, the S&P rose at least 30% in this 12-month period.
- 2 In all but one recession, the stock market’s rise **preceded** the recession’s end, typically by three to eight months. The Gulf War recession of 1990–1991 was typical. Although it officially ended in March 1991, the market reached bottom in October 1990, five months before the recession ended. During the next 12 months, the market rose 33.5%. In other market recoveries, such as following the 1982 recession, the market rose much more. The recession that started in March 2001 was atypical. It ended in November 2001 (two months after 9/11), but the market did not reach bottom for more than a year. The S&P bottomed in February 2003 (using monthly data).² However, once the market reached bottom, it rewarded investors with a 38.5% increase over the following 12 months. So, even this unusual example supports the idea that markets have rebounded sharply once they have bottomed out.

Stocks fall in recessions and rebound in recoveries. Trying to time the rebound is treacherous. The crucial lesson for all investors who have suffered in this market downturn is that it’s prudent to count on a rebound as the economy recovers.

As a retiree, what would I do now that the crisis has occurred?

The fact remains that the market downturn has crimped retirees’ ability to spend. There are three money management strategies that can help retirees adjust meaningfully in the near term, while they’re waiting for the market rebound.

- 1 **Cut back on spending, but do it sensibly**
Individual investors can learn from the methods that foundations use to set their spending rules. Foundations that rely on endowments—the institutional equivalent of an individual’s retirement portfolio—to fund spending will reduce spending in response to market downturns. Similarly, retirees who rely on accumulated wealth for spending should cut spending when their wealth declines.³

¹The portfolio depicted in Figure 2 is represented by four well-known indexes, the Barclays Aggregate bond index, the Russell 3000 all-cap U.S. stock index, the MSCI EAFE foreign stock index and the NAREIT index. In the 1950s and 1960s, the U.S. stock market is represented by the Ibbotson large-cap index and the U.S. bond market by the Ibbotson medium-term Treasury. The four indexes cited above replace the Ibbotson series as soon as they become available. Indexes are unmanaged and unavailable for direct investment.

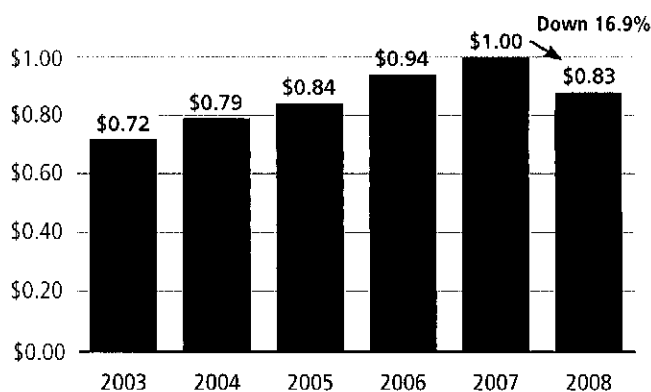
²Feb. 2003 end date is based on monthly data. Using daily data, the end date would be October 9, 2002.

So how much should spending be cut? The 50/50 portfolio shown in Figure 2 fell 16.9% in 2008. If the retiree adheres to a spending rule based on the previous year's wealth, then there must be a drastic cutback in 2009 spending. Of course, Social Security cushions the cutbacks somewhat.

However, it is possible to mitigate the impact of an annual spending rule. Most foundations and other institutional investors do not allow one year's investment performance to dictate their spending. Instead, they usually smooth spending by basing it on some average—such as a three-year average—of the portfolios' past values. Consider a simple numerical example. Suppose that the retiree had \$1 million at the end of 2006 and 2007, but that at the end of 2008 the wealth level fell to \$0.83 million, down 16.9%. Then the retiree would reduce spending in 2009 by only 5.6%, one-third of the drop in wealth experienced in 2008. The 5.6% spending cut in 2009, based on the three-year average, would be much less severe than the 16.9% cut based on the 2007–2008 decline in year-end portfolio value.

A three-year spending rule would have even less impact on spending if the rule were followed consistently over the years. Indeed, it should be followed consistently. Why? Because the retiree never would have increased spending to such a high level in the first place. Consider again the portfolio described in the paragraph above. If that portfolio was valued at \$1 million at the end of 2007, that would have been a high watermark even relative to the previous year since the portfolio earned 6.0% in 2007 and 12.7% in 2006. Figure 4 traces the value of the 50/50 portfolio over the last six years.⁴ So spending in 2008 would have been based on portfolio values that averaged much less than \$1 million. Since spending had not yet risen fully, it would fall less in a downturn.

Figure 4. Value of 50/50 portfolio over last six years



A three-year spending rule helps on the downside, but does it have any drawbacks? Yes, in the eyes of some people. First, the rule requires that spending be depressed even after the markets spring back. Consider the simple example where spending is based on \$1 million balances for 2006 and 2007 and a \$0.83 million balance in 2008. Even if the market sprang back to \$1 million at the end of 2009, spending would not immediately recover completely. Instead, it would remain depressed until the down-year of 2008 disappeared from the three-year average. The second drawback is that spending always lags behind the growth in wealth in a rising market. Still, it's prudent to base spending on the last three years' wealth rather than just on last year's. That's why institutional investors are slow to adjust spending to the latest windfall from rising markets. As a result, they cut back less in a downturn. Surely that's something many retirees would appreciate.

② Spend by drawing down cash and bonds, not stocks

Beside the need to cut spending, retirees must also worry about locking in losses on their stock portfolios. During investors' wealth accumulation years—when they don't need to fund spending from their portfolios—losses are not realized because stocks typically are not sold. But in retirement, assets must be sold to fund spending and also to rebalance to the portfolio's targeted asset allocation. Many investors fail to rebalance their portfolios when stocks fall. They end up with too little in stocks relative to their 50/50 desired allocation. If these investors sell bonds instead of stocks to fund their spending, they kill two

³If the U.S. still had traditional pensions, no cutbacks would be needed as long as the company that retirees worked for stayed in business. This is a sad fact about the new world of retirement.

⁴The portfolio returns are based on yearly rebalancing of the 50/50 portfolio shown in Figure 2 invested in the four bond and stock indexes described above.

birds with one stone. First, they rebalance their portfolios toward stocks. Second, they avoid locking in their stock losses by selling stocks at depressed prices.

Consider a simple example where the 50/50 portfolio's value falls by 20% as the stock portion falls 40%, but the bond portion remains unchanged. The portfolio is now more heavily weighted (62.5% to be exact) toward bonds. If the retirees don't rebalance immediately, they can fund spending entirely by selling bonds—instead of stocks—for the next few years. By doing so, they will slowly rebalance toward a 50/50 split for stocks and bonds. In the meantime, none of the losses on the stock portfolio are locked in. Stocks are free to rebound.

③ Annuitize part of the portfolio

As noted above, retirees and their advisors can tweak their spending rules to try to coax out more spending from a portfolio. But is there anything more fundamental they can do to sustain spending? Let's think about the problem systematically. First, they need to maintain wealth for an undetermined length of time. Retirees don't know how long they will live, but most Americans are now living long lives. This longevity suggests retirees should keep their spending in retirement very low. A spending rate of 4%, for example, is designed to keep the risk of running out of money way below 50%. But that means that there is a very good chance they will have wealth left over when they die. Second, because of this caution in setting spending rates, retirees leave more money than intended to heirs (and charity). Why? Because their spending rates leave wealth relatively intact long into retirement. That's wonderful for their children. However, most people believe they deserve to spend money on themselves in retirement, rather than simply providing a legacy for their children.

Is there any way for retirees to use up some capital without increasing the risk of running out of money? The answer is to pool their funds with those of retirees with similar life expectancies. This works because it takes advantage of probability: Individual retirees don't know how long they themselves will live, but they have a very good idea how long, on average, retirees their age will live. That's what Figure 1 says. If they join a pool of retirees, they can begin to spend their pooled capital with the assurance that if they live longer than average, the pool will sustain them.

This is the idea behind annuities that insurance companies offer to investors. Annuities can be very complex and difficult to understand. But one essential feature of annuities is that they insure against longevity risk—the risk that retirees will run out of money before they die. By pooling this risk, retirees can safely use up some capital during their lifetimes. So instead of holding on to all of their wealth late in retirement, they can safely spend the portion of their wealth that they annuitize. This enables retirees to raise their spending rates above what's otherwise prudent. In essence, spending is increased by reducing the payout to heirs. That seems a reasonable alternative to cutbacks during a downturn.

Lessons I can learn from the downturn

Let's review some important lessons, both positive and negative, that can be learned from the downturn. What are some negative lessons from this downturn? First, bonds are not the solution to market risk. An all-bond portfolio guarantees that investors will never keep up with inflation unless their spending is abnormally low. Second, retirees cannot avoid market downturns if they invest in stocks. Stocks fall in recession. Third, even portfolio diversification won't save investors from market downturns

But what are some positive lessons for retirees?

- ① While portfolio diversification is still impacted by market downturns, history suggests it will provide multiple ways to sustain the portfolio through a long retirement.
- ② If history repeats itself, retirees can count on market recoveries as surely as they can count on future market downturns. Most people are smart enough not to try to time these downturns and upturns.
- ③ Retirees need to think carefully about annuitizing part of the wealth they'll use to fund retirement. Those in retirement face longevity risk, and they need to insure against it.

Retirement poses financial challenges for everyone—not only retirees. And the financial crisis is forcing Americans to think more carefully about those challenges. But if retirees and their advisors carefully consider all of their options, they can ease some of their pain from the 2008–2009 market downturn. More importantly, we have the opportunity to create a better strategy to face these same challenges more effectively in the future.

What would I do if I were retiring within five years?

Retirement is hard to fund in normal times, and it's only getting tougher. Yes, a retiree will not starve with Social Security, but Social Security only provides a minimal income—far less generous than those provided by other industrial countries. In the past, many retirees benefited from traditional, employer-funded “defined benefit” plans which promised an income throughout retirement. Sometimes this income even rose automatically with the cost of living. But few Americans now have such plans. In 2006, only 16% of Americans in the private sector have defined benefit (pension) plans, according to a 2008 study by the Pension Benefit Guaranty Corporation, which guarantees private-sector pensions in the U.S. Most have to rely on “defined contribution” plans—IRAs, 401(k)s, and other retirement plans that, at best, are only partly funded by employers, but which do allow Americans to defer taxes until retirement. These plans are supplemented by whatever personal savings they accumulate. Most Americans save during their years in the labor force, and then hope that the accumulated funds last the rest of their lifetimes.

Just like retirees, individuals saving for retirement have seen their investment accounts fall dramatically. However, those near retirement but still working have an opportunity that retirees lack. First, Social Security benefits increase each year that retirement is postponed. A 62-year-old gains an extra 7% or more per year by delaying retirement until 66 (the normal retirement age for those currently nearing retirement). Second, the investor has a few more years to save for retirement. Third, the investor can allow the portfolio to grow further before beginning to draw it down with retirement spending. Fourth, when the investor finally does retire, annuities will provide even better returns than before. That's because annuity tables favor older retirees. These benefits from working a few more years before retiring are even more evident during a downturn.

Of course, not all Americans have the ability to postpone retirement. Disability or lack of employment can interfere. But for those who can continue working, a few extra years of work could reduce future retirement risks. Indeed, many Americans are deciding to work longer. Americans who are 65 or older are the second fastest-growing portion of the labor force. The downturn has reminded people how precarious retirement funding can be.

Dr. Richard C. Marston

Professor of Finance, Director of the Weiss Center for International Financial Research, Wharton School of Business, University of Pennsylvania

Dr. Marston is the James R.F. Guy professor of Finance at the Wharton School of Business, University of Pennsylvania. He is also the director of the Weiss Center for International Financial Research at the Wharton School.

Dr. Marston is a graduate of Yale and Oxford Universities, with a PhD from the Massachusetts Institute of Technology. He is a former Fulbright and Rhodes scholar, and the noted author of several books on international finance, including *International Financial Integration*, which won the Sanwa Bank Prize in International Finance.

Dr. Marston regularly teaches in the Investment Management Consultants (CIMA) Program as well as in other investment programs at the Wharton School. He is director of the Institute for Private Investors Program at Wharton, and has made investment presentations in over a dozen countries in Asia, Europe, and Latin America. His work has been widely cited in the press, including publications such as *Barron's*, *Financial Times*, *Newsweek*, and *The Wall Street Journal*; and he has appeared on television programs such as *Nightly Business Report* and on CNBC.

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