
$20123^{\text {rd }}$ Quarter Stock Market Commentary

COLLATERAL DAMAGE
"The difference between genius and stupidity is that genius has its limits."

- Albert Einstein

On September 17, 1996, Oprah Winfrey shook up the stodgy world of book publishing when she chose Jacquelyn Mitchard's The Deep End Of The Ocean as the first selection of Oprah's Book Club. The novel, the story of the kidnapping of a three-year old child from a Chicago hotel lobby, almost immediately rocketed to number one on both the New York Times and USA Today Bestselling Books lists, and was soon turned into a movie. During the fifteen years that followed until her show went off the air she recommended a total of 70 books. Fifty-nine of those made the USA Today Bestselling Books list, with 22 reaching the top spot. She made celebrities out of authors Mehmet Oz, Deepak Chopra and Suze Orman. Her clout was so great that bookstores took to ordering over 500,000 copies of any book she was going to choose, without even knowing the title. Her ability to power book sales was so great that it was been dubbed the Oprah effect. Singlehandedly, Winfrey re-generated interest in reading among a generation who had abandoned books for television.

Or did she? Craig Garthwaite, a professor at Northwestern University's Kellogg School of Business examined this issue. In the twelve weeks following the endorsement of a new book, weekly adult fiction book sales decreased by a statistically significant 2.5 percent, suggesting that an Oprah's Book Club endorsement borrowed sales from other books. In fact, there were statistically significant decreases for mysteries, action/adventure novels and romances.

Garthwaite suggests that Club selections - which included such titles as Anna Karenina by Leo Tolstoy, Great Expectations by Charles Dickens, and The Sound and the Fury by William Faulkner, to name but a few - were longer and more difficult than the usual beach-fare best sellers. Assuming that longer and more difficult books take more time to read, this helps explain the pattern of aggregate sales declines. Rather than stimulate a renewed interest in reading, the net effect was to reduce the total amount of reading in American households.

This is an example of an unintended consequence, where the outcome of an action was exactly the opposite of that hoped for. New laws are notorious for producing unintended consequences. The employment provisions of the Americans with Disabilities Act (ADA) illustrate this quite dramatically, because the laws well-intentioned provisions have actually harmed the intended beneficiaries of the Act, rather than helped them. The ADA was enacted to remove barriers to employment of people with disabilities by banning discrimination and requiring employers to make "reasonable accommodation" (for example, by making an existing facility wheelchair accessible). However, studies of the consequences of the employment provisions of the ADA show that the Act has led to less employment of disabled
workers. The added cost of employing disabled workers to comply with the accommodation mandate has made those workers relatively unattractive to firms. Moreover, the threats of prosecution by the Equal Employment Opportunity Commission and litigation by disabled workers, both of which were designed to deter firms from shedding their disabled workforce, have in fact led firms to avoid hiring disabled workers in the first place. That result is not surprising to students of economics. Theories of labor demand predict that when one group of workers becomes more expensive, firms will hire other workers or substitute capital for labor.

These musings were prompted by the juxtaposition of two recent news stories. The first was a release by Wall Street reporter Jon Hilsenrath on Jul 20 that the Fed was "moving closer" to more action to prop up the sickly economy, and that any action would likely occur after either the August or September Fed meeting. The Dow Jones Industrials, down over 200 points prior to the release, staged a furious knee-jerk rally at the close, as traders demonstrated once again how much they love free money. The second story also appeared in mid-July. It involved the bankruptcy filing of San Bernardino, California, the third California town to file within the span of only a month (the others being Mammoth Lakes and Stockton). Coincidence? I don't think so.

In fact, the Fed's continuing push to keep all interest rates near zero for more than five years raises the specter of more bankruptcy filings in the future, and is a big contributing factor in the failure of the job market to generate new jobs. We would suggest that the prescription of record low interest rates is likely to result in side effects that are more dire than the underlying disease.

In order to see the potential for unintended consequences, consider the current health of pension plans in this country. The Investment Company Institute estimates that there is currently a whopping $\$ 2.2$ trillion in private pension plans, and another $\$ 4.4$ trillion in government plans. These are assets set aside to help pay off IOUs, promises that the employer will provide a guaranteed level of income to retirees in the future. Low interest rates obviously hurt the plan sponsor's ability to earn an adequate return on the assets that have been set aside.

But low interest rates have an insidious effect on the liability side of pension plan balance sheets, too, because of the nature of pension plan accounting.

In order to explain this, we need a brief digression to explain a concept known as "discounted present value." Imagine, for simplicity, that you borrow $\$ 100$ from a friend, which he agrees to let you repay in a year. Suppose, further, that interest rates are $10 \%$. If you want to be sure that you will be able to pay him back in full, you could set aside $\$ 90.91$ today. If you earn $10 \%$ (the discount rate) on that sum, or $\$ 9.09$, you would have exactly $\$ 100$ when payment is due $(\$ 90.91+\$ 9.09=\$ 100.00)$. We would say that the discounted present value of $\$ 100$ next year is $\$ 90.91$ if interest rates are $10 \%$.

But if interest rates are only $1 \%$, then you would have to set aside $\$ 99.01$ to be able to repay $\$ 100$. since $1 \%$ of $\$ 99.01$ is $\$ 0.99(\$ 99.01+\$ 0.99=\$ 100)$. In this case the discounted present value of $\$ 100$ is $\$ 99.01$ when interest rates are $1 \%$.

Notice that when interest rates are lower, the more you have to set aside today to be able to meet next year's obligation. Moreover, this difference is magnified the further in the future your obligation. If you planned to repay the $\$ 100$ in ten years you would only need to set aside $\$ 38.55$ today if interest rates were $10 \%$, compared to needing $\$ 90.53$ if rates were only $1 \%$. It is much more costly to pay future debts when the discount rate is low.

Corporations and municipalities face a situation which is conceptually similar to our example. As sponsors of pension plans, they have promised to pay pension benefits to current and future retirees. But
the amounts are much bigger than the $\$ 100$ in our example. Collectively, municipalities are committed to approximately $\$ 3$ trillion in payments, while private employers have promised to pay roughly $\$ 2.5$ trillion. And these payments need to be made over time periods which are measured in decades, rather than only a year.

By law, both municipalities and corporations are required to set aside funds today to insure their ability to make good on their promises for the future (although the rules covering municipalities are less onerous than those for corporate employers). At the beginning of 2011, the average corporate pension plan had set aside approximately $85 \%$ of the amount required to reasonably insure the ability to pay the promised benefits. By the end of the year the funded status of those same plans had dropped to $75 \%$. As of July, 2012 that ratio had fallen further, to only $70 \%$. But by far the biggest reason for the decline in funding ratios was the continued slide in interest rates. As we saw in our example above, lower interest rates require that greater sums be set aside today to be able to fulfill a fixed obligation in the future.

In order to close the funding gap, many companies have elected to make larger than usual contributions to their plans. Consider, for example, Raytheon Corp, the Massachusetts-based defense contractor. With nearly $\$ 16$ billion in pension assets, Raytheon's plan is the 14th largest corporate defined benefit plan in the U.S. In 2007, before the financial crisis, Raytheon's contribution to its plan was $\$ 297$ million. As the Federal Reserve pushed interest rates down to record lows, the underfunding of the plan started to soar, so that today it is underfunded by roughly $\$ 6$ billion. The underfunding is roughly $30 \%$ of the total market value of the company. In order to narrow the deficiency, Raytheon has announced a plan to increase its pension contributions in each of the next three years to $\$ 1.2$ billion for 2012, $\$ 1.4$ billion for 2013 and $\$ 1.6$ billion in 2014. To put this in perspective, note that Raytheon's after tax earnings are approximately $\$ 1.8$ billion. Lower interest rates are forcing the company to make an additional $\$ 3$ billion in pension payments over the rate it was paying before the Fed forced rates close to zero. How many more employees could the company have hired if those funds did not have to be allocated to address the underfunding caused by abnormally low rates?

If this calculation is extrapolated to all of the other corporate plans, it becomes apparent that unfunded pension obligations are a significant drag on economic growth. Congress has become aware of the issue, and has tried to address it in its usual fashion - by kicking the can down the road. In the recently passed highway bill provisions were included to permit corporations to use a discount rate for computing the size of liabilities which is an average of applicable rates over the past twenty five years, rather than the five year average previously used. This means that the current near zero rate is blended with the high rates of the late 1980s, making the liabilities appear smaller, without actually improving the ability of companies to pay benefits. This accounting gimmick was tucked into a bill to repair decaying bridges. Perfect!

Similarly, the low discount rate is pressuring municipal pension plans, which tend to be significantly more underfunded than their corporate analogs. Since the financial crisis four cities in California have filed bankruptcy, three within the past year. In the most recent filing, San Bernardino Mayor Patrick Norris noted that the city faced a $\$ 5$ million budget shortfall in July, and a $\$ 3.4$ million pension obligation later in the month. Stockton, California cited pension obligations as a primary reason for its bankruptcy. Both cities faced sharp revenue shortfalls caused by the real estate crash, but in both cases lower interest rates caused the cost of funding pensions to become crushing.

Some of the side effects of low interest rates are totally predictable. Obviously, interest earned by savers is lower. According to data from the Bureau of Labor Statistics annual interest earned by individuals is down by roughly $\$ 450$ billion per year. That means that every two years the economy loses as much in consumer purchasing power as the entire stimulus program. According to a recent Wells Fargo/Gallup survey one third of investors state that low interest rates have caused them to delay retirement. Another
forty-two percent doubt that their retirement savings will last their lifetime, and forty percent of retirees report reduced consumption because of lower rates.

Bank earnings have been depressed because of low net interest margins, precisely at a time when they need to rebuild capital depleted by real estate losses. Again, this is not surprising.

But some side effects were probably unsuspected when interest rates were initially forced lower. Because of the way in which pension liabilities are smoothed over long time periods, low interest rates in the aftermath of the financial crisis would have had minimal effect if rates would have been permitted to rise once the crisis had passed. But near zero rates have significant impact when they persist for a long period, and next year will be the fifth year for this policy.

Given the spreading pain to corporate earnings, municipal budgets and the elderly, it seems reasonable to ask why the policy has gone on so long. There is a Latin saying "Cui bono", which roughly translates to "Who benefits?". It is frequently used in legal settings to imply that the party guilty of a crime can frequently be found among those with something to gain from it. In general, the beneficiaries of a low interest rate policy are borrowers, and the mother of all borrowers is Uncle Sam which has been running a deficit of $\$ 1$ trillion per year and has cumulative debt of $\$ 15$ trillion. Given the fact that one branch of government determines what the rest pays in interest expenses, could it be that our ruling class has put its own interests above those of struggling retirees?

