



Dwindling Dividends

There is no shortage of online articles promising great success for retirees who buy into stocks and live off the dividends. However, there is often little, or no, historical information provided.

Consider this - in 1873, a basket of large-cap stocks (like the S&P 500) paid a dividend yield of 7.5%. Receiving \$7.5 back in cash for each \$100 invested is not too shabby. The dividend rate peaked during 1917 at 10.2%, and it has generally hovered between 3.5% and 6% since then. That is, until around 1990 when dividend yields fell to the 2% range. Since then, with little fanfare, dividend yields dropped to a historic low of 1.3% today.

In general, company dividend distributions have become stingier as a percentage of stock prices. This is due, in part, to several companies either re-investing company profits or buying back shares – both with the goal of increasing the value of their stock price. Of course, rising stock prices also reduce the dividend yield.

More recently, reinvesting dividends have become a more tax-efficient strategy to many shareholders. Until 2003, dividends were taxed as ordinary income, while capital gains, if the position was held for more than a year, was taxed at lower capital gains rates. But today, qualified dividends (which is most of them) are taxed at either 0%, 15%, or 20% rate depending on the level of income.

Buying income is more expensive in both the stock and bond markets today. Today, many financial planners recommend, instead of trying to live off of income generated from dividends or bonds, investors use a total return concept which takes a percent of total portfolio value which, of course, consists of both income and capital gains.

Sources:

<https://www.multpl.com/s-p-500-dividend-yield/table/by-year>

<https://www.dividend.com/taxes/a-brief-history-of-dividend-tax-rates/>

<https://smartasset.com/taxes/dividend-tax-rate>



Lending to Friends and Family

The first thing which may come to mind when lending money to friends or family may be thoughts around impact on your relationship, because this is just a personal matter, right? Well, the Internal Revenue Service may feel differently.

There are some things which you should keep in mind, and some things you should absolutely do when providing family/friend loans. While it may seem less than friendly, consider charging interest. The IRS wants to be able to calculate gift taxes against the amount you would ultimately owe in estate taxes when you pass on assets to your heirs. If you were to make a no-interest loan to a son or daughter, the IRS would count the amount of interest you would be foregoing as a gift. If you do charge interest, the amount of interest would need to be reasonable in the eyes of the government.

Essentially, if you charge family members or heirs less than the minimum Applicable Federal Rate (AFR), then the government would calculate the difference – which would be counted as a gift to the family member to whom you made the loan. The government determines this rate by monitoring interest rate movements in the marketplace and calculating the minimum AFR for loans covering different time periods, then posting them on its [website](#). If you charge family members or heirs less than this rate, then the government would calculate the difference, and that would be counted as a gift to the family member to whom you made the loan.

These rates are fairly low. For example, a short-term AFR (up to 3 years) in September 2021 was 0.17%; the AFR on loans of 3-9 years is 0.86%, and anything over 9 years would have a rate of 1.71% to 1.73%, depending on whether the interest is being paid back yearly, quarterly or monthly.

Note that these rules don't apply to loans of less than \$10,000 which are not used to purchase income-producing property. If you don't want to go through the hassle of charging interest, you could always calculate (or have a professional calculate) the implied interest payments, and then offset that amount with your \$15,000 annual gift exemption to the borrower. But even then, it's a good idea to document the terms and stated interest rate in case the IRS ever decides to come back and do an audit.

Source:

<https://tips.resourcesforclients.com/T74ctGwcsp3d/5749>



Medical Revolution

The future of medicine is happening now, even if it will not land in our medicine cabinets for another 5 to 10 years. Virtual doctor appointments are becoming common place, mental health services are available via text, birth control can be ordered online through a portal – no visit needed. The focus will be more on the individual, their make-up, and prevention vs reactive treatment.

By the 2030s, Gizmodo reports, doctors will be prescribing drugs based on our genetic makeup and on a quick sequencing of the actual microbial diseases that have been identified in our bloodstream. Medications and treatments will be uniquely designed to combat the exact pathogens causing the infection, rather than the antibiotics of today, which generically suppress or destroy all the bacteria in our body, even if they are not harmful or invasive. This breakthrough has the potential to be remarkably effective against the pathogens that antibiotics won't touch today, from the viruses which cause the common cold to COVID.

It is expected that some of the medications in the 2030s will contain engineered bacteria which would function as programmable factories, producing the required drug therapies on demand directly inside our bodies. Once a patient had received the required dosage, days, weeks or months later, they would drink a special solution containing a harmless chemical which would flush the drug-producing microbes from their body. Eventually, these living organisms could be replaced by nanoscale robots which would screen our microbiome and bloodstream for invasive pathogens. These robots would then either alert a smart device telling us to head to the nearest hospital, or simply take action to eliminate the invader directly.

Research also points to mental health medications which will contain cannabinoid compounds, psilocybin and other psychedelics which are not typically found in our bathroom cabinets today. Individuals with chronic depression, post-traumatic stress disorder and even schizophrenia might be treated by psychedelic interventions that are being investigated in clinical trials around the globe.

Recent research at the National University of Singapore is exploring bandages that help blood to clot without sticking to the wound. Other projects are looking at ways to deliver drugs to the wound through these super-bandages, bandages that pull skin together for rapid healing, and electronic bandages which would speed up the healing process even further. Some of these could be comprised of skin cells grown in the lab, capable of triggering healing of traumatic injuries in days without scarring.

Medical Revolution

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While the contents of our medicine cabinet have not changed much in the last 30 years, this will not be the case going forward.

Source:

<https://gizmodo.com/what-you-ll-find-inside-medicine-cabinets-in-2030-1847184049>



New Technology Offers Relief for Chronic Pain

The CDC reported, in 2019, that just over 20% of adults had chronic pain. This can include neuropathic pain (caused by damaged nerves), nociceptive pain (caused by pain receptors which are activated in an injury but never turn back off), somatic pain (related to joint injury or arthritic conditions, sometimes to muscle pain), or visceral pain (deep pain which originates in one or more of the body's organs). The individuals who suffer from these, and other, forms of chronic pain may soon be able to find relief.

For the estimated 50 million people in the U.S. who are impacted by chronic pain, traditional treatments are not especially encouraging. Over-prescription of some pain medications has contributed to the opioid epidemic, and other treatments – including “talk therapy”, pain management classes, exercise, and changes in nutrition – are less than perfect solutions.

Recently, a research group from the New York University School of Medicine has been approaching the dilemma from a different angle. They've created a device which monitors the anterior cingulate cortex, a strip of the brain that processes pain in both animals and humans. The device listens in on brain signals, and whenever it detects the activation of pain signals, it sends a message to an optical fiber inserted into the brain's prelimbic prefrontal cortex. The fiber activates neurons which dampen the pain signals where they are processed and experienced.

There is still a lot of work to do before the same technology will be available to human pain sufferers, but similar technology has already been approved and is used to forestall epileptic seizures before they can get started. The researchers note that the stimulated brain region doesn't generate a sense of euphoria, which was a leading driver of opioid addiction, and it only activates when pain is detected, which lowers the chance that the brain will adapt to the dampening signals and require more and more of them as time goes on.

It is important to remember that pain can be a useful signal indicating something is wrong in the body, which is why nobody wants to turn it off completely. In fact, people who cannot feel pain are at a much higher risk of injuring themselves than those who can feel pain. But, when pain becomes a daily challenge, the need for effective treatment becomes essential.

Sources:

<https://singularityhub.com/2021/06/29/a-new-brain-implant-automatically-detects-and-kills-pain-in-real-time/>

<https://www.practicalpainmanagement.com/patient/resources/pain-self-management/chronic-pain-explained>

<https://www.practicalpainmanagement.com/patient/resources/understanding-pain/types-chronic-pain>



Pandemic Boosts Gaming

The pandemic has done much to change our lives, and one positive change is our desire to seek out positive interactions with one another. More people are playing board games, cards, and puzzle games together – either staying in and playing at home or playing in an online environment. These online competitive games have given many a focused outlet in a time when other activities were limited.

The wildly popular Wordle (<https://www.powerlanguage.co.uk/wordle/>) allows you to solve a word puzzle and share the results via text or social media without revealing the answer. Who can guess the word in fewer tries? Board Game Arena (<https://en.boardgamearena.com/gamelist>), based in Paris, has hundreds of games people can play against each other remotely. Options include classic, well-loved games like chess, checkers, clue, backgammon, hearts, Chinese checkers, cribbage, and spades. For the more adventurous, there are also some less-known games like Patchwork, Viticulture, Race for the Galaxy, and Stone Age.

Avid card players will enjoy Trickster Cards (<https://www.trickstercards.com/home/bridge/>) on which players can compete online in spades, euchre, pitch, hearts, whist, and pinochle. Trickster Cards also lets online players see each other as they play, adding that “real feel” to the game. Of course, you can always invite your card-playing club to log into the same Zoom session for a virtual face-to-face game!

[Chess.com](https://www.chess.com) offers players of all skills levels a fun online gaming environment through which to enjoy the game and hone their talents. Individuals can compete against one another or a computer-generated component, and they have the option to solve chess-based puzzles in which they try to make the best move in difficult scenarios.

If you love challenging yourself with solitaire, check out [solitaire.com](https://www.solitaire.com), which has over 500 different games, including classic Klondike, Spider, and Pyramid along with many solitaire options you’ve likely not tried yet. Another great individual option is puzzles. Master puzzlers can assemble jigsaw puzzles online at sites like [Jigsaw Explorer](https://www.jigsawexplorer.com). A warning for all – these games can be fun but addictive!