



Volume 46 - Number 2

Summer 2022

Professional Advisory Services, Inc.
2770 Indian River Blvd. – Suite 204 • Vero Beach, FL 32960
(800) 847-7274 • (772) 778-0552 • fax (772) 770-2979

Market Update – *Bear Markets Feel Bad*

by David A. Jaffe, M.D.

Okay, maybe not the most insightful words ever to grace these pages. Bear with me.

We should all know that periodic market declines are an inherent and predictable element of stock ownership, but that knowledge does little to ease the discomfort of watching account values decline. Confirming your greatest fears, there's nothing like a bear market to bring out the naysayers, appearing on television with proclamations of doom and gloom. The problem is magnified by the uncertainty of the moment and near-term observations seemingly validating their dire predictions.

This quarter we offer some balance, with Nathan Polackwich sharing his perspective on the current economic and market environment and adding some historical context. Yes, we are in a bear market, with the S&P 500 ending the first half of 2022 down 19.96% (okay, not quite the requisite 20% decline arbitrarily defining a *bear* market, the reinvested dividends buoying the index). The PASI composite stock portfolio eked out a small edge over the S&P 500, with a decline of 19.37% (also including dividends). It was one for the record books, the *worst* start to a year since 1970.

Also notably gloomy is the bond market performance, with our short to intermediate term corporate bonds declining in *market value* by 5.70% (vs. -5.77% for the comparable benchmark). Rising interest rates depress the market value of existing bonds, but by holding our bonds to maturity we expect to receive the full face value of the bonds when they mature. The current decline is, in fact, a "paper loss" which will revert as the bonds approach maturity. However, they certainly haven't helped to cushion account volatility as they do most years.

The central problem in today's economic environment is inflation, and until we have more clarity regarding the extent to which the Federal Reserve will raise interest rates to slay this dragon, and whether they precipitate a recession in doing so, volatility will continue and

financial market recovery will lag. It is worth remembering, however, that investors are forward-looking; renewed confidence will typically precede economic stability by six to twelve months. Considering this with the measured context outlined by Nathan, below, and it is reasonable to view the next few quarters with “cautious optimism”.

“A Forgettable Recession”

by Nathan Polackwich, CFA

When you think about U.S. economic downturns in modern times, which come to mind first? For most it's probably the Great Depression and the two major bear markets of the 21st Century – the collapse of the Internet bubble in 2000/2001 and the Housing/Credit Market Meltdown in 2008/2009. We remember these events due to the *availability heuristic*, which is the tendency to better recall extreme events. There's also an element of *recency bias* with the Internet and Housing busts.

Between the Great Depression and the Internet Bubble, however, the U.S. experienced ten other recessions, most of which (perhaps excluding the 1973 oil crisis) were relatively mild and forgettable. Yet when investors currently try to envision the next recession, the availability heuristic and recency bias tend to direct their thoughts toward a few particular downturns that just happened to have an unusually severe impact on the economy and financial markets. Fortunately, today's economic environment has little in common with those events.

The Great Depression was mostly due to the U.S. (and many developed countries) operating its monetary system under the gold standard, which has an Achilles Heel in that it forces a contraction in the money supply during recessions, often turning them into depressions. Specifically, in bad times speculators pull deposits from banks and rush to redeem their currency for gold, depleting central banks' reserves. To stem the outflow and make holding cash more attractive, the monetary authorities are forced to raise interest rates, putting additional pressure on the economy and banking system. During the Great Depression this negative feedback loop led to a spectacular increase in bank runs and failures (causing still more monetary contraction and economic pain), which only ended when the U.S. finally (effectively) abandoned the gold standard in early 1933.

More recently, the 2001 recession was relatively short, lasting only eight months, as well as shallow with U.S. GDP falling just 0.3% in total. But the impact on the stock market was significant due to the bursting of a historic bubble in Internet and technology stocks, lost investor confidence from accounting scandals (most notably Enron), and the 9/11 terrorist attacks.

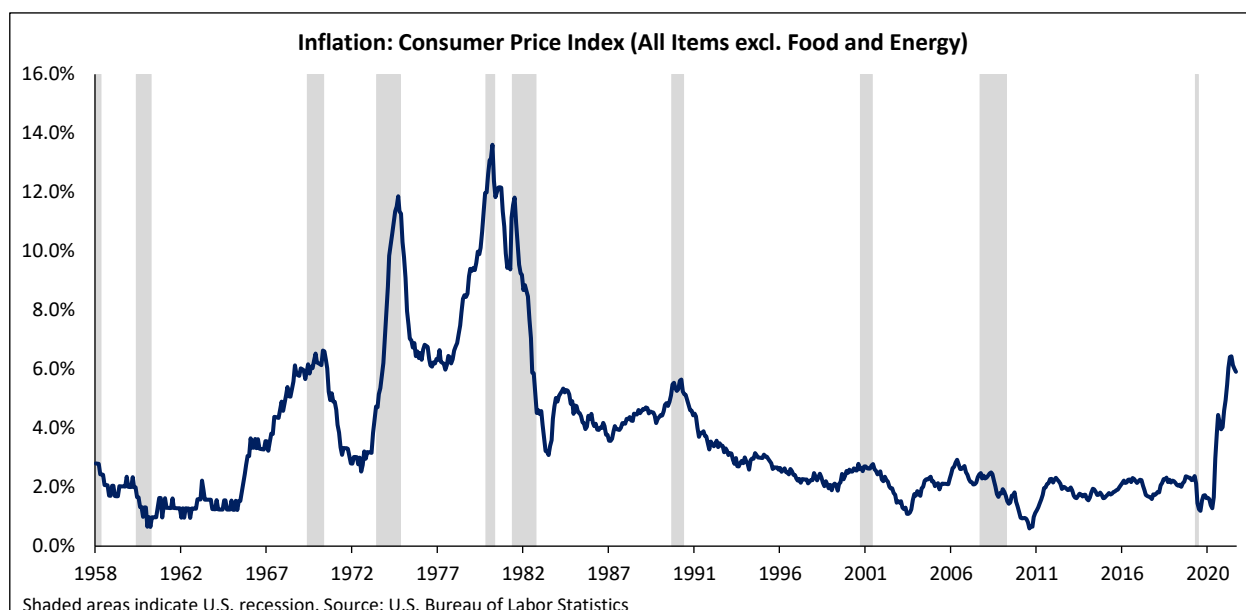
Finally, the 2008/2009 recession was mostly due to a meltdown in bad real estate loans related to a second historic bubble, this time in housing. This recession was deeper, lasting a year and a half with the economy shrinking 5.1%. Housing busts can be particularly damaging to the economy, as they affect a much broader swathe of households than the stock market. While 10% of Americans own 89% of U.S. stocks, the bottom 90% of the population owns 55% of real estate and fully 65% of Americans own a home (source: The Federal Reserve).

So when trying to imagine the next recession, the examples that likely come to mind are either unrelated (gold standard induced Great Depression) or the result of historic asset bubbles bursting. These events share few similarities to the economic environment today.

Critically, the Internet and Housing Recessions occurred at the end of long expansions. The U.S. economy had grown for ten straight years prior to the 2001 downturn and then another seven years before the one in 2008/2009. Economic growth was consistent during these periods because inflation was mostly benign. What causes recessions? In almost every case in the post WWII era, U.S. recessions were preceded by inflation or the fear of potential inflation and the Federal Reserve trying to cool things down through interest rate hikes. As Fed chairman William Martin remarked in 1955, the Fed “is in the position of the chaperone who has ordered the punch bowl removed just when the party was really warming up.”

The conventional wisdom is that inflation hurts the stock market because it increases the discount (interest) rate that investors use to estimate stocks’ valuations. Companies are worth the present value of their future cash flows. The higher interest rates rise, the lower that present value falls.

The problem with this theory is that inflation would not just cause a rise in interest rates but also a jump in companies’ future cash flows, as they raise the prices of the goods and services they sell. Theoretically, then, inflation should have a neutral impact on stock values – the rise in the discount rate would be largely offset by the increase in growth. And yet historically inflation has indeed had a strongly negative effect on stock valuations. Why? Take a look at the chart below, which shows annual U.S. inflation rates with the shaded areas being periods of recession.



You may notice that during the period of high inflation from about 1970 to 1983, the U.S. economy experienced four recessions, or one approximately every three years. We then entered an era of modest inflation from 1984 all the way through 2021. In this 37-year period, the U.S.

also experienced just four recessions, but each occurred approximately every nine years. And the 2020 recession wasn't even due to inflation necessitating Fed rate hikes, but rather governments briefly shutting down their economies to slow the spread of COVID.

Returning to the question of why persistent inflation tends to coincide with poor stock returns, a compelling explanation is that it causes more frequent recessions, as the Federal Reserve is repeatedly called upon to raise interest rates and slow growth. In contrast, when inflation is low, economies can expand unrestrained for years, allowing companies' earnings to benefit much longer from the magic of compound growth.

Periods of low inflation and steady growth are heady times for investors, but they can also introduce a unique problem that results in particularly harsh, though infrequent, bear markets – *financial bubbles*. As the economist Hyman Minsky famously observed, “stability is destabilizing.” Minsky’s “financial instability hypothesis” argued that the longer good times continue, the more complacent investors and lenders become. Stocks are bought not based on their profits but simply because their price is rising. Banks and other financial institutions lend not because borrowers have the capacity to repay but because the underlying asset (e.g. a home) is expected to keep increasing in value, protecting the lender in the case of default.

Inevitably, of course, the house of cards collapses in what has been dubbed a “Minsky Moment.” Lenders go belly-up and financial markets crash. Often the downfall is precipitated by the Fed raising rates, but the real issue is a massive buildup of bad debt and speculative activity that starts to unravel once asset prices begin to decline.

The good news is that the U.S. is not currently on the cusp of another Minsky Moment.¹ The last recession was just two years ago, and household balance sheets have never been stronger, with net worth as a percentage of income at all-time highs and total debt service payments (monthly interest and principal) as a percentage of income at historic lows. In addition, following tough new lending restrictions and capital requirements in the wake of the credit market meltdown in 2008/2009, U.S. financial institutions' balance sheets also look pristine and capable of withstanding most reasonable economic scenarios.

Accordingly, I don't expect the next U.S. recession, should it happen soon as a result of the Federal Reserve's current attempt to subdue inflation by raising interest rates, to be unusually memorable. A more run-of-the-mill recession and bear market like the vast majority in the post WWII era appears more likely.

The big question for investors going forward is whether the next economic era will be one of higher inflation, frequent recessions, and generally poor stock returns like the 1970s, or if we'll revert back to the relatively low inflation, stock market friendly conditions that defined most of the last 40 years. I still lean toward the latter outcome.

The pandemic created a rapid once in a lifetime shift in household spending from services (e.g. vacations and restaurants) to goods (e.g. computers, fitness equipment, appliances) that

¹ Except perhaps in cryptocurrency, though the impact on the broader economy should be minimal.

companies' supply chains simply couldn't accommodate. This led to industry wide shortages and higher prices in a host of products from toilet paper to cars. These shortages were then exacerbated by 1) older people and mothers leaving the workforce due to COVID concerns, and more recently 2) Russia's invasion of Ukraine and the resultant impact on oil and food prices.

Positively, household spending patterns are already returning to pre-pandemic norms with major retailers like Walmart and Target seeing their sales slow and inventories starting to pile up. Amazon even acknowledged that it overbuilt the number of warehouses and distribution centers it needed. Conversely, hotels, restaurants, and airlines are experiencing a resurgence in demand. Also of note, as COVID fears have receded, the labor force participation rate has steadily climbed and has now almost fully recovered to early 2020 levels.

The two areas where higher prices may be stickier are food/energy and housing. I expect the former to continue to be an issue as a resolution in Ukraine doesn't look imminent (concerning food, Russia and Ukraine combined account for 25% of the world's wheat).² The housing shortage will also take time to alleviate, as housing can't be built overnight. That said, relief is on the way as new homes under construction are currently at an all-time record.

Still, while Russia and housing could remain problematic, continued high inflation would require their impact to significantly worsen from *here*. To me that seems unlikely – most of the damage has already been done. Russia cannot become even more isolated from the global economy, and higher mortgage rates have started curtailing real estate demand at the same time that housing inventory has begun to rise.

Concerning the financial markets, the average S&P 500 decline due to recessions in the post WWII period is 31%. Stocks, as measured by the reinvested S&P 500, are already down 19.96 % year to date. Moreover, the average one year return once stocks hit their lows in a recession is approximately 40%. While it's impossible to predict when the current bear market will end, the stock market has already incurred substantial damage and the potential for significant long term gains has increased considerably. As the investor and businessman Shelby Davis once observed, "You make most of your money in a bear market; you just don't realize it at the time."

A Tale of Two Companies: How Shareholders Get Paid

by Jeremy Goldberg, CFA, CFP®

There are three common ways stocks produce a return for investors: 1) dividends, 2) buybacks, and 3) price appreciation. The latter is the most difficult to predict, but there's readily available information regarding dividends and buybacks that allows us to better understand how you, the shareholder, get paid back (and then some!) for your investment.

This is a tale of two *real* companies: Company A and Company B. Company A has been publicly traded for 18 years and Company B has been publicly traded for 9 years. Over 60 Wall Street analysts (combined) cover these two companies, publishing research on every action, then

² The MIT Media Lab

adjusting recommendations based on market reaction, before starting fresh the next day. Analysts overwhelmingly love both companies, with 85% recommending a “Buy” on Company A and 75% recommending a “Buy” on Company B. The market capitalizations of the companies are in the tens to hundreds of billions of dollars.

Both are within the Information Technology (IT) sector and have been beneficiaries of the work-from-home shift brought about by COVID. To that end, they’ll also benefit if we return to the work-from-work norm or remain in this hybrid environment. Simply put, they are well-positioned.

For the five-year period ending on 12/31/2021, Company A and Company B stocks returned a whopping 271% and 316%, respectively, vs. the S&P 500 index return of 133% (all including reinvested dividends). Neither company is immune to the COVID-induced supply chain issues, nor the global shock from Russia’s invasion of Ukraine. As a result, Company A’s market value has fallen approximately 30% year-to-date while Company B’s market value has fallen approximately 20%. Still, Company A is expected to generate \$32 billion of sales this year and Company B is projected to generate \$25 billion. Below are select financial metrics from each company’s most recent fiscal year:³

(\$ in millions)	Company A	Company B
Total Revenue	\$26,500	\$21,000
Operating Income	\$550	\$1,400
Other Income	\$1,200	\$30
Net Income (Profit)	\$1,400	\$1,000
<i>Profit Margin</i>	<i>5.45%</i>	<i>4.75%</i>

Company A generated \$1.4 billion of profit on \$26 billion of revenue, whereas Company B generated \$1 billion of profit on \$21 billion of revenue. Of note, Company A made more money from “Other Income” than it did from its core business. Regardless, this clearly isn’t a tale about one company’s success vs. the other company’s failure. This is about how that profit is returned to shareholders.

Publicly traded companies are required to publish their Income Statement (profitability), Balance Sheet (assets and liabilities), and Statement of Cash Flows (cash reconciliation) annually. The connectedness of these financial statements is especially important because not all cash flows are treated equally, and through savvy accounting practices, not all profit belongs to shareholders.

The Income Statement breaks down revenues, expenses, and profit during the year. Leftover profit that isn’t distributed to shareholders via dividends is added to retained earnings on the Balance Sheet. Carried on the Balance Sheet are assets, like cash on hand, inventories, and property and equipment. If companies took on debt to purchase said inventory or equipment, that debt would be on the Balance Sheet as liabilities. Changes in assets and liabilities occur during the year as companies reinvest into the business and incur expenses. The financials on the Income Statement and Balance Sheet **together** produce the Statement of Cash Flows.

³ All financial data sourced from most recent company Form 10-K.

The Statement of Cash Flows then attempts to reconcile “non-cash” expenses (like depreciation and amortization) and changes in working capital to determine the cash flow generated by the business’s day-to-day activities. The difference between operating cash flows and the money the company invests in capital expenditures (like equipment purchases) is called “free cash flow.”

Free cash flow is generally regarded as the ultimate cash flow measure because it ostensibly assesses the level of cash available for shareholders. Company A has free cash flow of \$5.3 billion and Company B has free cash flow of \$685 million.

(\$ in millions)	Company A	Company B
Net Income (Profit)	\$1,400	\$1,000
Non-cash Expenses	\$6,300	\$230
Changes in Working Capital	(\$1,700)	(\$430)
Operating Cash Flow	\$6,000	\$785
Capital Expenditures	(\$717)	(\$100)
Free Cash Flow	\$5,283	\$685

Incorporated into this calculation is stock-based compensation. This form of compensation is how *managers* become *billionaires*. Jamie Dimon didn’t found JP Morgan. Tim Cook didn’t create Apple. Sundar Pichai didn’t develop Alphabet (Google). They had skin in the game through equity options and other forms of stock-based compensation – and now they are all billionaires.

When companies pay management through stock-based compensation, it is dilutive to existing shareholders. This is not very apparent at the *total* cash flow level, but it is glaring on a *per share* basis. Consider Nathan and I open PASI Pizza Parlor equally and it generates \$100,000 of total cash flow. Nathan’s share is \$50,000 and my share is \$50,000. If Nathan and I instead “raise” funds from friends and family to open PASI Pizza Parlor by selling equity and retain only 10% ownership each, total cash flow would still be \$100,000, but Nathan’s share would only be \$10,000 and mine would only be \$10,000. The more people that *share* in total cash flow, the less cash flow available to *share*.

A company’s per share cash flow is based entirely on the number of shares outstanding. Company A has nearly 1 billion shares outstanding, and Company B has 135 million shares outstanding. While it is easy to see the difference between per share cash flows from PASI Pizza Parlor, dilution is much less noticeable when the number of shares outstanding is hundreds of millions or billions.

Myriad examples exist of companies that don’t take the proper steps to shelter their existing shareholders from dilution created by management’s own stock-based compensation. Fortunately, dilution is easily corrected by repurchasing at least enough stock to offset any *new stock* issued for management compensation. Sometimes companies repurchase enough, and sometimes they don’t.

The table below shows how much Company A and Company B spent on stock-based compensation and share buybacks last year:

(\$ in millions)	Company A	Company B
Free Cash Flow	\$5,283	\$685
Stock-based Comp.	(\$2,779)	(\$73)
Share Buybacks	\$0	\$1,500
Buybacks > Comp	No	Yes
Adjusted Free Cash Flow	\$2,504	\$685

Over half of Company A's free cash flow is paid to management in the form of stock-based compensation. Still, the company generated \$2.5 billion last year. Company B also pays management with stock, but to a much lesser degree. Importantly though, Company B repurchased \$1.5 billion of stock during the year so there is absolutely no dilution to existing shareholders, whereas Company A repurchased nothing. From this vantage point, the capital allocation priorities for Company A are clear: management compensation. That's not the case for Company B. Of course, this could have been a one-time phenomenon considering all the economic and political turmoil since 2020. Below summarizes how each company has spent their free cash flow over the trailing 5 years:

Trailing 5 Years		
(\$ in millions)	Company A	Company B
Free Cash Flow	\$18,100	\$4,150
Stock-based Comp.	(\$9,000)	(\$250)
Share Buybacks	\$0	\$3,550
Buybacks > Comp	No	Yes
Adjusted Free Cash Flow	\$9,100	\$4,150
Dividends Paid	\$0	\$885
Debt Increase	\$8,900	\$3,300
Acquisitions/Reinvestments	\$25,600	\$2,800

Company A generates a lot of cash flow, but they spend over half of it on management compensation. They use the rest, plus debt, to fund general company reinvestments. The hope is that the earnings on these investments more than offset the costs to fund them. Despite Company B generating less cash flow and incurring additional debt, they paid shareholders back in the form of stock repurchases and dividend distributions every year, and still reinvested \$2.8 billion into the business.

We already know – with the benefit of hindsight – that both stocks have done superbly during this time frame, so choosing either would have been a fantastic investment five years ago. Company A's "return to shareholders" was in the form of stock price appreciation alone (during a period of stock dilution). Company B paid back shareholders through dividend distributions, stock repurchases, and price appreciation, the first two far more predictable than changes in stock price.

This was the easy part. It's empirical. The hard part is where we go from here. This is when Wall Street consensus can come in handy. The "Street" expects both companies' revenues to grow 20% over the next year, but Company A's profit is expected to be flat while Company B's profit is expected to grow 21%. Qualitatively, both companies have similar catalysts within the IT sector, but we know Company A grows through acquisition and Company B grows organically.

Right now, the market is valuing Company A at \$173 billion and Company B at \$23 billion. After adjusting for management's stock dilution, Company A is trading at 69x free cash flow whereas Company B is trading at a more palatable 29x free cash flow. As we've seen with many stock market darlings since COVID, stocks can trade at extreme valuations for extended periods of time, but inevitably, the market will course correct.

Both companies could do well going forward, but the margin of safety in Company B is far superior to that of Company A. That's why we've owned technology distributor **CDW Corp** (Company B) since 2019, as opposed to software developer Salesforce (Company A), a leader in customer relationship management and analytics. CDW is the largest national IT value-added reseller in the U.S. It sells over 100,000 products and services from more than 1,000 leading brands, including Microsoft, Google, Apple, Samsung, and Salesforce. CDW also services over 250,000 businesses, governments, education organizations, and healthcare customers in the U.S., U.K., and Canada. Its diversified revenue and profit streams have enabled it to generate organic growth twice the industry average over recent years, and CDW management believes it can grow 2-3% **faster** than its peers' expected growth of 3.5%. Notably, management felt similarly last year, and grew a whopping 11.7%. Trading at an incredibly reasonable valuation of 17.7x estimated 2022 earnings (vs. Salesforce valuation of 36.5x estimated 2022 earnings), we continue to expect CDW shares to outperform as their expertise in all-things IT becomes an even hotter commodity.

Hurricane Season – *We're Well Prepared!*

It seems paradoxical to think about silver linings and storm clouds in the same context, but there's no doubt that the COVID pandemic accelerated business "WFH" (work from home) capability and technologies. While PASI has shifted to a more balanced structure recently, with staffing in our physical office at about 70% of pre-pandemic levels, we sure got good at working remotely if needed!

Our hurricane procedures include preparation of our physical office to minimize the impact of water intrusion and moving our central computer to a secure location clear of the storm path. Most of our team will be able to plug in phones and laptops and be ready to serve your needs quickly, limited only by availability of electricity. David's Montana office serves as remote backup. BNY Mellon will be alerted to initiate contingency processing for client needs.

You can read our Disaster Recovery Policy on our website www.pa-services.com. Please follow the "contact us" tab; you will find a link to the policy on the bottom left area of that page. In the event that primary communications are affected by a storm, we will post updates and any

important information on our website. If you have any questions about our contingency planning, please don't hesitate to call.

Disclosure

Professional Advisory Services, Inc. may, from time to time, have a position in securities mentioned in this newsletter and may execute transactions that may no longer be consistent with this presentation's conclusions. Reference to investment performance of the PASI composite stock portfolio is made gross of expenses. For formal performance disclosure with net returns please contact our office.