INVESTMENT OUTLOOK

A PEAPACK PRIVATE WEALTH MANAGEMENT PUBLICATION

SECOND QUARTER 2023: AI, CHATGPT, AND THINGS THAT CAN'T BE DIGITIZED

You say you want a revolution
Well, you know
We all want to change the world...
You say you got a real solution
Well, you know
We'd all love to see the plan
-John Lennon

OMG. Can someone please turn down the volume? The noise about AI (artificial intelligence) is almost unbearably loud, deafening and repetitive and doctrinaire. Whatever your media of choice, the messages are Johnny one-note. AI is going to change everything. How we work. How we interact. How we learn. How we recreate. Even, believe it or not, how we have sex.



Think these claims are lofty? Pie in the sky? Global consultancy McKinsey and Co. predicts that generative artificial intelligence will add up to \$4.4 trillion of value to the global economy every year, and that half of all work will be automated between 2030 and 2060. A recent article in *The New York Times* suggested that some retailers are now using AI to combat shoplifting, a \$100 billion problem according to the National Retail Federation. Use cases include navigation, facial detection, text editors, search and recommendation algorithms, chatbots, digital assistants, smart homes, and on and on ad infinitum seemingly.

The technology is deemed to be so critical to national security and to US industrial policy that the Biden Administration is considering curbing the sale of AI enabling computer chips to China.

It is tempting to start to address this media-dominating topic with a definition of AI. Instead, though, let's start with a definition of fad. A fad is an intense and widely shared enthusiasm for something, especially one that is short-lived and without basis in the object's qualities; a craze.

Is Al a fad, a craze, a frenzy, a mania? There are numerous examples in the past 25 years of misplaced investor enthusiasm for the latest newfangled technology. Before Al, it was the metaverse. Before the

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metaverse, it was blockchain. Before blockchain, it was autonomous driving. Before autonomous driving, it was 3D printing. Before 3D printing, it was nanotechnology.

So, there. The gauntlet has been thrown down. Al: is it a total world-changing new paradigm...or just the latest technology enthusiasm that in time under-delivers against over-hyped expectations. Stay tuned.

MARKETS DANCE TO THE AI TUNE

If you dance, you must pay the piper.
-American proverb

Al's long-term effects on the world may be an open question for some time. However, its short-term effect on financial markets is beyond doubt. The technology-laden NASDAQ Composite Index rose 13.1% in the second quarter and 32.3% in the first half of 2023, its strongest first-half performance since 1983.

US equity markets, which are characterized by substantially higher representation of technology companies, out-performed global counterparts. US large cap stocks ran up 8.7% in the quarter and 16.9% in the first half. Returns in overseas markets were more muted, at least in part due to fewer companies with Alpowered narratives.

In fixed income markets, rates rose during the second quarter as fears of a banking crisis dissipated and the economy demonstrated more resilience than anticipated. Only commodities posted negative six-month returns, weighed down by a weaker than expected Chinese economic expansion.

Asset Class	Index	2nd Quarter Returns	Year to Date Returns
US Large Cap Stocks	S&P 500 Total Return	8.7%	16.9%
US Small-Mid Cap Stocks	Russell 2500	5.2%	8.8%
International Developed Markets Stocks	MSCI EAFE	3.0%	11.7%
Emerging Markets Stocks	MSCI EM	0.9%	4.9%
Real Estate Securities	MSCI US Real Estate	2.7%	5.5%
Commodities	Bloomberg Commodities Futures	-2.6%	-7.8%
Bonds	Bloomberg Barclays US Aggregate	-0.8%	2.1%
Cash	FTSE USBIG 1 Month Treasury Bill	1.2%	2.3%

SOURCES: THE WALL STREET JOURNAL, STANDARDANDPOORS.COM, FTSE, MSCI, BLOOMBERG

The data presented, however, mask large discrepancies within markets. Perhaps the most significant characteristic of US equity market performance this year to date is the dramatic out-performance of the largest technology companies. Investors put their collective thumb on the scale of the so-called MegaCap 8 stocks: Tesla, Microsoft, Nvidia, Apple, Amazon, Netflix, Meta Platforms (the company formerly known as Facebook), and Alphabet (the company formerly known as Google). These eight stocks, representing 27% of the S&P 500, were up an average of 59%, and account for 73% of the index's gain this year. Put another way, the remaining 492 stocks in the S&P 500 were up a mere 4%.

Wall Streeters refer to this as 'narrow breadth,' steering clear of labelling it 'bad breadth' [sic]. In and of itself it's not the healthiest of signs—a robust market rally includes participation from a larger number and great variety of companies.

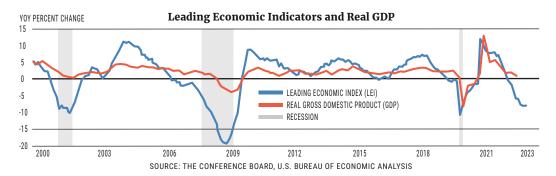
WHAT HAPPENS TO A RECESSION DEFERRED?

Does it dry up
Like a raisin in the sun?
Or fester like a sore—
And then run?
Does it stink like rotten meat?
Or crust and sugar over—
Like a syrupy sweet?

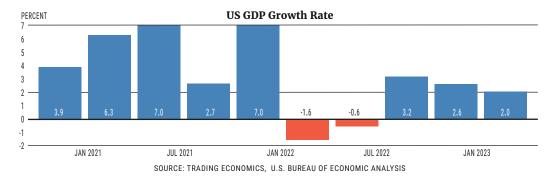
Maybe it just sags Like a heavy load.

Or does it explode? -Langston Hughes, "Harlem"

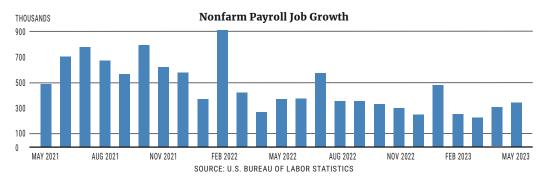
Are recession fears, like Twain's quip about reports of his death, greatly exaggerated? With apologies to Langston, will recession calls fade away, as the economy glides into a soft landing, or will such calls haunt us with ongoing foreboding? Economists have been warning of a coming recession for over a year now. And some of the most reliable forward-looking indicators have been and remain solidly in negative territory, for a year or more. Among them: the yield curve has been inverted since March 2022, and the extent of the inversion has been increasing recently. And then there's The Conference Board's Composite Index of Leading Indicators, which has been falling since mid-2021, and has been in negative territory for over a year.



Contrary to these indicators, the final reading on the first quarter 2023 GDP was revised sharply higher to a 2% annual growth rate, driven by robust consumer spending growth of 4.2%. As the chart below indicates, the US experienced modest GDP contraction in the first half of 2022, recovering in the third quarter with the widespread availability of COVID vaccines and boosters. However, since then growth has been decelerating, as the cumulative effect of 500 basis points of Fed funds rate increases starts to bite.



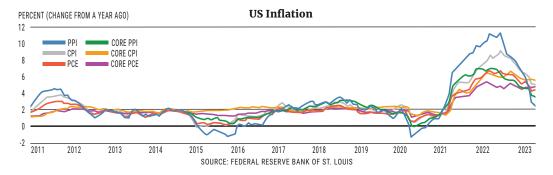
However, the US economy has been surprisingly resilient in the face of higher borrowing costs. The Atlanta Fed's GDPNow model suggests GDP accelerated modestly at a 2.2% annualized rate in the second quarter. The key support for the economy remains a still-robust labor market. Non-farm payrolls continue to expand at a pace dramatically faster than population growth.



Despite warnings and threats, Al-trained robots give no evidence of eliminating millions, or even just thousands, of jobs. New job formation has consistently out-paced forecasts; in May, 319,000 new jobs were created, compared to an average expectation of 180,000. For context, over the long term on average the US economy has added 125,000 nonfarm payroll jobs monthly, according to Trading Economics. The most recent JOLTS (Job Openings and Labor Turnover Survey) report from the Bureau of Economic Analysis indicated the number of unfilled jobs remains elevated at 9.8 million.

Consumer spending accounts for the lion's share of US GDP, and a fully employed labor force isn't a prescription for a consumption-driven GDP growth slowdown—nor for an easing of inflation pressures. And, after all, it is elevated inflation that has caused the FOMC to adopt restrictive monetary policy—in the forms of higher interest rates and balance sheet contraction.

There are multiple ways to gauge Inflation but, nuances aside, all measures peaked approximately one year ago and have fallen ever since. Producer prices have fallen precipitously and, insofar as PPI is perhaps the most forward-looking inflation indicator, there is reason for some optimism that broader price measures will follow suit.



While progress on the inflation fighting front is good news for the general economy, it comes at a price. There are sectors that show considerable weakness. Manufacturing and industrial production have been soft, and housing activity—particularly, existing home sales—are well below pre-pandemic levels. Housing affordability is at multi-decade lows, hurt by home price appreciation, higher mortgage rates, and limited inventory. Falling truck tonnage and rail volumes suggest that the goods economy is experiencing weakness, too.

BOND MARKET NIRVANA? A BULL MARKET IN YIELD

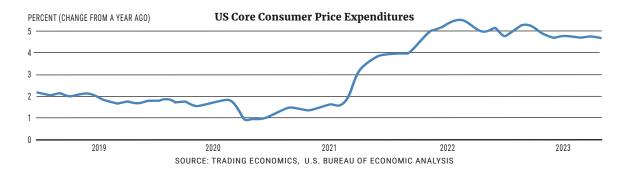
People think good times last forever...until they don't.
-Frank Sonnenberg

If we wait for the moment when everything is right, we shall never begin.
-Ivan Sergeyevich Turgenev

After 16 consecutive months of rate increases totaling 500 basis points (5%), the FOMC skipped a further rate hike at its June meeting, while indicating that additional rate increases were in the offing this summer. The restrictive monetary policy stance follows over a decade of interest rate suppression that inflated stock and real estate values but deprived conservative bond investors and bank depositors of billions of dollars of interest income.

Market participants' response to tightened monetary policy has been cautious, almost disbelieving—skeptical bond investors have consistently under-estimated Fed Chair Jerome Powell's inflation fighting commitment. More recently, bond market forward curve data suggest investors have become convinced that higher rates may hang around for a while.

Here's the reason why. The year-long progress fighting inflation appears to be stalling. The chart below shows the Fed's preferred inflation gauge, core Personal Consumption Expenditures (excluding food and energy), has been stable, not decreasing, in recent months.



The most likely culprit? Sticky wage inflation.

A few examples: West Coast dockworkers will receive a 32% increase over 6 years. FedEx's pilots will receive a 30% pay increase, and Delta's pilots are looking at a 34% increase over four years. Hotel workers in southern California are striking for higher pay. UPS is engaged in contract negotiations with the Teamsters' Union over drivers' pay. High post-pandemic labor demand, the ongoing retirement of baby boomers, and historically low labor force participation rates have given labor the upper hand in wage negotiations. Multi-year labor contracts build in wage inflation over the lives of the contracts. The implication is that the FOMC will be challenged to bring inflation down to its 2% target.

The good news for bond investors? Yields are elevated, and central bankers around the world are pledging to keep them high or drive them higher still. In the US, most investors anticipate an increase of 25 basis points at the FOMC's July meeting. And, depending on inflation data over the next two months, the FOMC may lift rates a further 25 basis points at its September meeting. The European Central Bank lifted rates by 25 basis points at its June meeting, its eighth consecutive increase, and President Lagarde has indicated its work fighting inflation is not finished. In the UK, where inflation is yet higher still, the Bank of England is raising rates more aggressively.

Instrument	High	Low	Current	Basis Points From Low
30 Year	5.35%	0.99%	3.85%	286
20 Year	5.44%	0.87%	4.06%	319
10 Year	5.26%	0.52%	3.81%	329
5 Year	5.18%	0.19%	4.13%	394
2 Year	5.10%	0.09%	4.87%	478
3 Month	5.55%	0.00%	5.43%	543
FFR	5.41%	0.04%	5.07%	503

SOURCE: ETF TRENDS. AS OF JUNE 30, 2023.

As the table above indicates, current yields on US Treasurys are in the top quartile of their yield range over the past 16 years. Investment grade corporate bond yields are, of course, richer than these yields. Risk averse investors seeking reliable income: this is your moment. Yield opportunities today are literally 2-3-4X greater than they were 18 months ago. Yields on sub-investment grade bonds are substantially higher still.

Some bond investors are wary, however, because of the potential of yet higher rates in the future—which might cause regret at having tied up capital at today's rates, and might result in bond price declines. However, further interest rate hikes—the FOMC's Summary of Economic Projections suggests two more ¼% rate increases—are likely to be limited. And when the economy ultimately does slow sufficiently, and inflation subsides, the FOMC will relax its restrictive policy, cutting rates and rewarding fixed income investors for having committed capital. A mix of short- and intermediate-term high-quality bonds seems likely to generate historically generous income, compared to the recent past, and is unlikely to encounter the discouraging price declines of the magnitude experienced last year.

EQUITY INEQUITY

If you get all the facts, your judgment can be right.

If you don't get all the facts, it can't be right.

-Bernard Baruch

There is nothing stronger than those two things: patience and time. They will do it all.
-Leo Tolstoy

If equity markets have delivered such robust results, why are investors generally, and professional money managers specifically, so grumpy? Well, for one, there are so few stocks, as noted earlier, that have participated in this rally. For another, low quality stocks have out-performed high-quality stocks, and stocks that don't pay a dividend have out-performed stocks that do pay a dividend. In addition, the predominance of growth stocks versus value stocks (stocks growing faster than the market versus stocks that are cheaper than the market) reached extreme levels: the Russell 3000 growth index trounced the Russell 3000 value index, with the former rising 27.4% and the latter rising 3.5% for the first half of 2023.

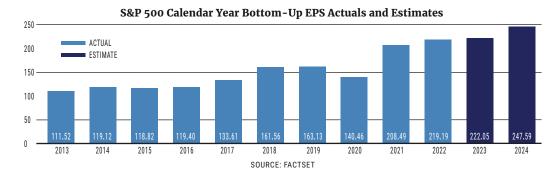
But the number one reason most investors are under-participating in the stock market party? Maybe, just maybe, investors recall the Internet 1.0 frenzy of the late 1990s, when adding 'dot com' to a company's name was worth an instant 25% market valuation gain. Today, day after day, companies are trotting out their hot-off-the-press Al initiatives and strategies, in a PR-driven move to juice their stock prices. The following chart illustrates the extent to which companies are jumping on the Al bandwagon.



Let's turn instead to fundamentals. We focus on levels and trends for earnings and profit margins, and on valuations. As we start the second quarter earnings reporting season, revenues are expected to decline 0.4% versus year-ago levels. Analysts are expecting earnings to decline by 6.8% versus the year ago second quarter; this would represent the third consecutive quarterly earnings drop.

Net profit margin is estimated at 11.4%, a modest decline from the first quarter, and less than year-ago net profit margins of 12.2%. The implication is that businesses are having troubling passing through higher costs to customers.

If these sales and profitability estimates seem less than inspiring—never mind, adequate to account for the market's appreciation this year—perhaps the answer lies in analysts' upbeat forward estimates. Analysts see an earnings recovery in the fourth quarter that would push calendar year earnings for 2023 modestly into positive territory (up 0.9%), and earnings growth for calendar 2024 up 11.7% on revenue growth of 4.9%. One could infer from these data that a recession is not on analysts' minds.



The S&P 500 bears a forward price/earnings ratio of 18.9, above the 10-year average of 17.4, according to FactSet.

Negotiating financial markets in the midst of a mania is a distinctly challenging experience. It can be tempting to chase the bright shiny AI object, just as investors pursued dazzling story stocks festooned with dot com labels in the late 1990s. We know how that era ended. The Internet 1.0 phenomenon tempted many investors to abandon time-tested portfolio management portfolios—ultimately, to their dismay, as the technology bubble burst. Companies without sustainable business models and without earnings—some even without revenues—experienced plummeting stock prices and in a number of cases bankruptcy restructurings.

If history does not repeat but it rhymes, it could turn out that when the AI bubble deflates it may be large, well established companies, whose valuations were pumped up to unsustainable levels, that experience some of the steeper valuation resets.

ON SMART TOASTERS, MACHINE LEARNING AND HUMAN BEHAVIOR

I miss the days when you could push someone into the water without having to worry about their cellphone.
-Anonymous

A computer once beat me at chess, but it was no match for me at kickboxing. -Emo Philips

There are a few AI naysayers who perhaps may be no more credible than the purveyors of the AI global domination story. These voices warn, in intonations straight out of science fiction novels, that generative AI will ultimately lead to machines that outsmart *homo sapiens*, and will end up controlling us. The dark side of the story is that AI, like most technological developments, can be used for evil every bit as much as for good. Thus, AI can empower communist and fascist regimes. It can write term papers for students. AI can eat its creators, rendering computer coders redundant. Gadzooks. AI can even replace portfolio managers.

But the truth is that many Al applications may end up proving impotent, even frivolous. After all, who needs a smart toaster that can defeat you in a chess match?



"I remember when you could only lose a chess game to a supercomputer."

And anyone who has tried to work with Apple's Siri voice technology (as John McEnroe would say, "You cannot be Siri-ous") or Microsoft Word's grammar and punctuation (mis) corrections is intimately familiar with Al's limitations.

It's also worth remembering that AI and machine learning have been around for a while. After all, it's AI in one form or another that powers algorithmic trading on Wall Street, search engines that make the Internet accessible, directions around a traffic jam, and Amazon buying suggestions.

So, color us as AI evolutionaries, at best, not revolutionaries. AI will indeed make significant contributions to technological and scientific progress. It is plausible that it may enhance and accelerate medical research. It could make mass customization a consumer reality rather than a marketing buzz-phrase. And it may well lead to productivity enhancements and efficiencies.

Investment implications? As long-term investors, we're uninclined to try to sort out winners and losers in a boom-and-bust environment. Rather, we like reasonably predictable beneficiaries of the AI story who also have other strategies to assure success. Examples? Companies that make semiconductor chip-making equipment, that should thrive regardless of leading and lagging among computer chip companies. And companies who harness AI that improve customers' outcomes, like farm equipment companies whose technology can tell farmers when a field needs to be irrigated and when a crop is at peak harvest time.

So, nothing new under the sun. We still prefer to invest in companies with strong and sustainable competitive positions in industries that offer acceptable returns on invested capital, with differentiated products that support industry-leading profit margins, and with strong balance sheets that provide financial stability during challenging economic circumstances. And we remain valuation-sensitive. Price matters, and overpaying for a security ensures a reduced return.

Companies have a good track record at beating reduced earnings expectations, and there is no reason not to expect that to happen again. Still, with higher interest costs and growing margin pressures, companies are likely to respond in time with reductions in force. Over time, unemployment may rise, and inflation pressure may ease.

In such an environment, we favor US equities sporting modest valuations and fully priced risks (there are some good exemplars in the healthcare and financial sectors, for example). International developed markets offer significantly more attractive valuations and greater dividend payouts, even if the inflation fight overseas is not as advanced. Real estate securities prices may, selectively, be overstating risks in the space, particularly away from the well-known troubled office and retail sectors.

In fixed income, laddered bond portfolios approaching benchmark duration make sense, as an appropriate solution to the two opposing issues of interest rate risk and reinvestment risk.

If you have read this far, perhaps it is because you appreciate that this natural intelligence-generated *Investment Outlook* may be at risk of becoming an historical relic. After all, we live in a digital age, and it's worth remembering that machines are digital, while the human brain is analogous. Thank you for processing this analogously.







Writing, Horace told us, should serve to teach and to delight. Perhaps, as machine learning and Al progress, it will be possible for generative Al to create this type of communication—to gather and sum up information and utilize inductive reasoning to sway readers to a point of view. There can be little doubt that software on a machine can produce a publication like this in less time (and with less sweat and fewer tears!).

But it's hard to believe that AI will ever achieve the ability to delight. And oh, what a loss that would be.

Wishing you, dear reader, a summer full of delight as we endeavor to use all forms of intelligence—natural, native, artificial—that we collectively possess to non-autonomously drive your portfolio to results that help you to realize your aspirations and your dreams.



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