



# The ADVISOR

Focus on Community Banking Issues

Second Quarter 2022

## ECONOMIC ENVIRONMENT

### The Fed Holds the Cards

With war, supply chain disruptions, and high energy prices weighing heavily on the U.S. and global economies, the Federal Reserve is facing a difficult crossroads between managing historic levels of inflation while avoiding a material slowdown in economic growth. The yield curve has already inverted, which is extremely unusual at the beginning of a tightening cycle, and many have voiced concerns of a looming recession if the Fed acts as aggressively as they have indicated lately in order to stabilize consumer prices.

### Inflation is Persistent

Inflation has proven far stickier than anticipated, and as such, the Fed's outlook has become increasingly hawkish over the first three months of 2022. The March Consumer Price Index registered an 8.5% increase, further reinforcing that inflation is not merely transitory. Unsurprisingly, the largest drivers were skyrocketing food and energy prices related to the war in Ukraine, which we will be discussing in further detail. This rapid reversal in Fed sentiment is well illustrated in the Fed funds futures market. On 12/31, the market implied only a 36% probability that the Fed would increase

rates by 25bps by the May meeting. Now, futures imply a 90% probability that the Fed will hike rates an additional 100bps by the June meeting, signaling two consecutive 50bp moves. Rate hikes cannot solve the continued global supply chain disruptions, however. In recent weeks, extended Covid-19 lockdowns in Shanghai have forced factory closures across many industries. Major electronic, chip, and auto manufacturers such as Bosch, Pegatron, and Tesla have halted production in the region, and the associated inflationary effects have not yet been reflected in the

## EPG RATE FORECAST

April 2022

MARKET RATE	Actual (%) 3/31/2022	Projected (%) 3/31/2023	Yr1 Δ	Projected (%) 3/30/2024	Yr2 Δ
<b>FedFunds</b>	0.50	1.75	1.25	2.50	0.75
<b>Prime</b>	3.50	4.75	1.25	5.50	0.75
<b>3mthTsy</b>	0.52	1.33	0.81	2.25	0.92
<b>6mthTsy</b>	1.06	1.48	0.42	2.35	0.87
<b>1yrTsy</b>	1.63	1.76	0.13	2.45	0.69
<b>2yrTsy</b>	2.28	2.36	0.08	2.50	0.14
<b>3yrTsy</b>	2.45	2.41	-0.04	2.55	0.14
<b>5yrTsy</b>	2.42	2.46	0.04	2.60	0.14
<b>10yrTsy</b>	2.32	2.52	0.20	2.75	0.23
<b>30yrTsy</b>	2.44	2.85	0.41	2.80	-0.05

#### RATE OUTLOOK DESCRIPTION:

This represents EPG's current view of interest rates. Depending on the actual timing of the ALM meeting, the forecast may be altered and/or updated. For the most accurate current rate forecast, please call EPG, Inc. at (781) 235-2666.

### Features

- **Economic Environment:** Inflation remains the key economic driver.
- **Fixed Income Strategy:** The Fed continues to drive the bond market.
- **Equity Strategy:** Managing through Fed induced equity market volatility.
- **ALM Strategy:** The outlook for 2022 after a strong 2021.

**EPG**  
INCORPORATED



# ECONOMIC ENVIRONMENT

monthly CPI figure. The timeframe for these lockdowns to subside is unknown, but it is clear that there is still immense pressure on global supply chains that cannot be resolved through central bank intervention.

A concerning dynamic arising from months of startlingly high inflation is the disconnect between real wages and consumer price increases. The U.S. economy has seen the fastest job growth in nearly 40 years, with year-over-year nominal wage growth of 5.6%, which on the surface sounds strong. However, with inflation running at 8.5%, this represents a real wage decline of 2.9%, a dynamic that runs counter to the traditional view that a lower unemployment rate creates higher real wages. Employees across the country have essentially lost one month's income from inflation, so a drop in discretionary spending is likely given that the main drivers of inflation are necessary items such as food and fuel.

### *An Aggressive Fed and the Impact on EPG's Forecast*

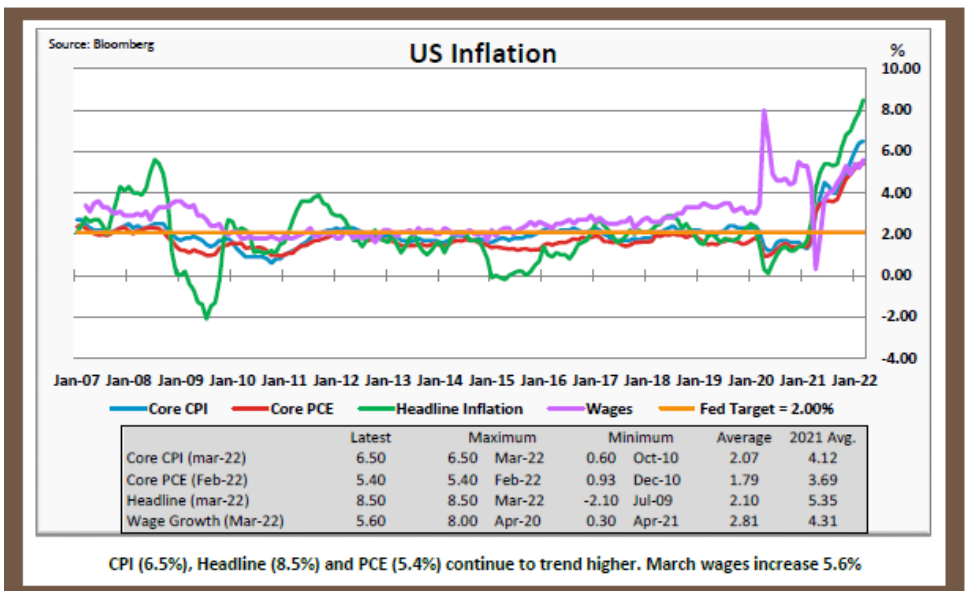
It is all but certain that the Fed will hike rates in May and June, but by how much? The market has priced in 50 basis point hikes in

each meeting, but we believe the Fed will surprise investors by taking a more conservative approach. We project the Fed will hike rates by 25 basis points in each of the May and June meetings as they attempt to control inflation while avoiding a steep economic slowdown.

Following the 25 basis point hike at the June meeting, we project 25 basis point quarterly hikes until reaching a terminal rate in the 2.50% range. This indicates a tightening cycle ending at the end of 2023. The Fed has been very transparent (and probably too transparent!) regarding the size and scope of rate hikes and the possibility of balance sheet runoff, which has emboldened investors to price another 8 hikes into the short end of the curve.

To avoid a prolonged period of curve inversion and associated

recessionary concerns, the Fed may continue to use forward guidance to influence the curve, but now with the goal of steepening through indication that they will allow the size of the balance sheet to decline. If the Fed indicates they will begin "quantitative tightening," the long end should rise to offset the inversion that has occurred. Governor Brainard's recent comments regarding balance sheet runoff reflect this potential strategy, with the curve steepening in the days following her statement. In an age where technology allows traders to process information faster than ever, forward guidance continues to be a highly effective tool in the Fed's arsenal. Therefore, we are projecting the 10-year Treasury to stabilize around 2.50% by





throughout 2021 may continue for the foreseeable future.

### *Could Aggressive Rate Hikes Trigger a Recession?*

With the war in Ukraine pushing up energy prices and worsening supply chain issues, many are concerned that contractionary monetary policy could cause U.S. GDP growth to stagnate or decline. Even with multiple 50bp rate hikes priced into fixed income markets, the consensus is that the Fed still remains behind the curve with regards to controlling inflation. Currently, Bloomberg's survey of economists signals a 25% chance of recession in the next 12 months; if this does occur, the Fed would likely cut rates to soften the economic impact. This risk is why we project the Fed to raise rates at a more conservative pace, as the central bank would lose credibility if forced to reverse course in short order. It is important to note that recessions are also marked by declines in real personal income and retail sales, two dynamics that are already playing out today. The Fed is in a very precarious position, and a slower than expected but steady tightening cycle can effectively fight inflation without damaging the economy. ♦

the end of Q1 2023 and inch up to the 2.75% range at the end of Q1 2024. With the tightening cycle having been completed by this point, we project the short end to stabilize while the overall curve reverts to an upward slope, although still relatively flat from a historical perspective.

### *Geopolitical Impacts on U.S. Economic Outlook*

The immediate economic impacts of Russia's invasion of Ukraine have been clear, with energy and commodity prices rising significantly in the wake of sanctions on Russian oil and disruptions to Ukrainian steel and agricultural production. According to the United Nations Food and Agriculture Organization, month-over-month price increases of grain (17.1%) and vegetable oils (23.2%) have pushed food prices to the highest levels on record. Ukraine and Russia account for more than a quarter of global wheat exports and the majority of sunflower oil exports.

Following the destruction of five merchant ships in the Black Sea, the cost of insuring these vessels now exceeds the cost of hiring the ship itself. Even with the U.S. releasing nearly 200 million barrels of crude from its strategic oil reserve in an effort to stabilize prices, the reality is that American

consumers are likely to redirect leisure spending towards fuel and food. While changes in spending habits are likely temporary based on the duration of the conflict, the damage to global trade may be stickier. If U.N. members economically isolate Russia in the long term, it will take time for global trade (and the prices of Russia's major exports) to adjust.

### *The Housing Market Remains Hot*

A secondary effect of monetary tightening is higher mortgage rates. According to Freddie Mac, the average 30-year fixed rate mortgage has risen from 3.11% to 4.72% since the beginning of the year, capping off the fastest three-month rise since 1994. In the short-term, the impact of rapidly climbing mortgage rates has run counter to expectations, with home prices continuing to rise sharply. The first reason for this is simple and the most likely to dissipate: prospective homebuyers are attempting to outrun rising borrowing costs, with a mindset that they will never be able to buy if they do not buy now. The more intriguing reason for the continued rise in housing costs is the lack of inventory. Existing homeowners who refinanced or purchased a home at a low mortgage rate are reluctant to sell because the rate on their new mortgage would be much higher. As a result, the fierce competition for housing seen



# FIXED INCOME STRATEGY

## FIXED INCOME STRATEGY

### Short Term Rates Will Continue to Rise

Entering the year investors were expecting rates to move higher, and started to accept that the Fed Funds rate was going to rise to 2.5%. The Treasury market reacted immediately, and started doing the work for the Fed on the anticipation of rate hikes this year. At the March Fed meeting a more hawkish message was delivered, with the Fed now targeting a more aggressive approach to fight inflation. The new plan was to raise short term interest rates 6 times in 2022, and an additional 4 more in 2023. That said, just days after the

meeting, Powell said the Fed will continue to fight inflation and rate increases could be more than the traditional 25 basis point increments if necessary.

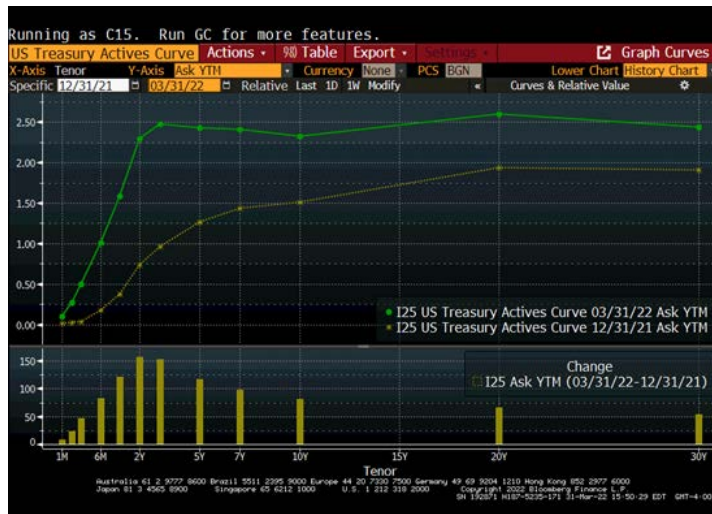
The highest levels of inflation in nearly 40 years will ultimately drive a more aggressive approach from the Fed. Additional speculation on winding down the purchase program, combined with a potential announcement of slowing portfolio reinvestment, weighed heavy on markets as spreads across asset classes have widened. With the Federal Reserve now determined to manage inflation, and economic risks impacted by geopolitical tension, Powell still believes recession chances are low. As we transition to the next Fed meeting their focus will continue to be on price stability and tightening monetary policy, which will also defend their own credibility.

### *Listen to the Fed*

The Federal Reserve manages a dual mandate of maximum employment with price stability and contained inflation. In January of 2019, Chair Powell became more of a presence by holding press conferences at every central bank meeting. Prior to this the Fed chair only held press conferences at every other meeting, just 4 times per year rather than 8. Investors need and value all information that the Fed shares, and in doing so, the terms forward guidance and transparency have evolved.

During the March press conference, Powell in not so many words thanked the markets for starting the tightening process before the Fed even got to their first benchmark increase of short term interest rates. Unlike the prior Fed, Powell is encouraged if markets get in front of the Federal Reserve

### Yield Curve



Source: Bloomberg

### Yield Curve Change

Term	12/31/2021	3/31/2022	Change
6 Mo	0.17	1.00	0.83
1 Year	0.38	1.59	1.21
2 Year	0.73	2.33	1.60
3 Year	0.96	2.51	1.55
5 Year	1.26	2.46	1.20
7 Year	1.44	2.43	0.99
10 Year	1.51	2.34	0.83
20 Year	1.93	2.60	0.67
30 Year	1.90	2.45	0.55

utilizing their forward guidance. In fact, he has stated that a functional market should be in front of a Fed that communicates well. As a result, Fed communication has become more powerful. In his view, the Fed has changed an old interpretation of what many once thought was behind the curve to leading the way. In the current environment if the Fed has delivered their message well, the markets will do the rest of the work for them.

A perfect example is our current economic environment and the shape of the yield curve. The Fed made it clear that they were planning to raise short term rates this year, regardless of volatility, inflation, or geopolitical concerns. The bond market listened to the Fed and did exactly what had been communicated. The yield curve from 2 years and out had already priced in the majority of the future expected Fed activity in what was about to be an active Fed tightening cycle, even before the first Fed move on March 16<sup>th</sup>. Whether we agree or not with the Fed's plan on how efficiently they can raise rates and contain inflation, Chair Powell is communicating forward guidance and markets have clearly been listening.

### *The Shape of the Yield Curve has Changed*

While the Fed has started to raise rates, the yield curve can continue to flatten or invert, as we have already seen, between the 2 and 10 year part of the curve. Under the current landscape it is possible the Fed could tighten monetary policy more than needed and create the potential for a recessionary environment. Currently long term interest rates have already priced in an active Fed, while the front end just started its move to the next equilibrium level for the Fed funds rate. It is possible that the longer end of the yield curve could have difficulty getting additional lift and may remain near current levels. This could easily translate to the 10 year Treasury staying in a range of 2.5%-2.75%. We could also be in an environment that has elevated pricing, geopolitical concerns, and ongoing supply chain constraints. Additionally with the current landscape the Fed also indicated that by 2024 it is possible that we are back in an easing environment, which would also help contain the long end of the yield curve from changing dramatically from current levels.

### *Fixed Income Investing*

Therefore, with a backdrop of rising short term rates, geopolitical tension, volatility, and elevated inflation, we should not be surprised by the risk-off mode investors have taken in the first



quarter, resulting in lower equity valuations, higher bond yields, and wider spreads across fixed income asset classes. The pandemic pushed interest rates to the floor, but we are now in a significantly different interest rate environment. Choosing yield curve placement and cash flow forecasting coming from the investment portfolio will factor into maintaining sufficient liquidity needed for other potential balance sheet activity. The lack of slope in the yield curve will have ongoing implications on reinvestment needs to validate appropriate compensation associated with yield curve exposure. We continue to invest in high quality cash flowing asset classes, diversifying interest rate risk across the yield curve, while also maintaining sufficient liquidity within a portfolio context. We also will be looking for an entry point to begin purchasing more bullet type alternatives that will protect the portfolio in a declining interest rate environment. With yields significantly higher now than we have seen in nearly 3 years, leaving excess liquidity in cash has become more expensive. ♦



## EQUITY STRATEGY

### EQUITY STRATEGY

#### *Consumers and U.S. households look strong: not necessarily a good thing*

With three very difficult months having come and gone when looking at the equity markets, April is shaping up to be yet another month of volatility. As all now anticipate, Fed actions to stamp out a historically high rate of inflation, combined with a fundamentally strong consumer and robust key economic data is creating much concern that the Fed will have to raise rates aggressively to slow down the economy and tame inflation, thereby creating an increasing probability of a “hard landing.” (i.e. recession)

For the first time in many years, U.S. household cash now exceeds household debt levels, according to Jim Read, head of thematic research at Deutsche Bank. In addition, strong retail sales, positive consumer sentiment, surprising consumer spending, an exceptionally tight labor market, and positive housing starts all signal that the economy and its strong momentum will be very difficult to gradually guide to a

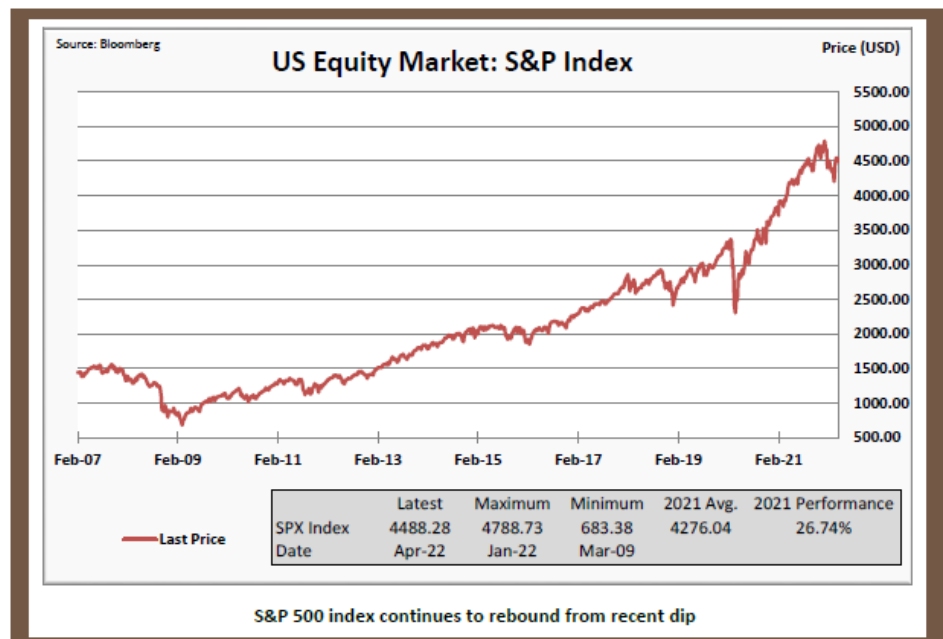
“soft landing”. Fed actions to combat such inflationary economic strength may in fact lead to a very slow growth or recessionary period. These Fed actions will take the form of aggressively raising short term rates while trying to influence other areas such as mortgage rates through reducing participation in the mortgage backed securities market.

#### *An earnings expectation focus going forward: “Beats versus Misses”*

First quarter earnings growth for the S&P 500, according to Credit Suisse, should beat estimates by 8%. This positive trend, continuing what we have seen for a number of quarters, reinforces the current robust economic data “headwinds” which the Fed is up against. The ability of companies

to fully transfer rising costs to the consumer, through raising prices at the same or greater rate as cost increases, is a key dynamic that has supported corporate earnings. This is not expected to keep up with the current inflation rate with consumers already showing “selectivity” in how they spend. This can be seen by data evidencing spending choices being made for necessities versus more discretionary and leisure spending.

The equity market is focused on two things: market interest rates and corporate earnings forecasts. The overwhelming influence the Federal Reserve is perceived to have on the economy and its ability to carefully guide and moderate the economy’s rate of growth is influencing how equity investors view “the data.” Recent negative economic data has had the effect of actually creating equity market rallies versus





# EQUITY STRATEGY

market declines. This is because the more that economic news indicates a slow down in economic activity, the less likely the Fed will have to aggressively tighten and therefore less probability of a Fed induced “hard landing” or recession.

### *It's always about looking forward*

Equity valuations and therefore appreciation opportunity comes from a combination of elements that frame a view for the future that is preferred to a view seen today. This perspective takes the form of both quantitative (i.e. the numbers) and qualitative (i.e. the story) analysis. Underlying this perspective on the future is the ability to not just have a clear understanding of why a particular equity will perform better than it has today, but how that performance will “exceed expectations.” These expectations are framed first by industry analysts and then accepted by investor participants. Profits, sales, and revenue growth are assessed and valued based on the likely forecast given by the company itself, and this outlook for the future is measured against analyst expectations and in many cases, analyst demands. The result of too wide a variance between what actually occurs with these measures of corporate success and what analysts

expected, especially in uncertain times like these, can drive a change in opinion from the analyst stakeholder perspective with a company. This is communicated to the investor community through “upgrades or downgrades” of the stock. In uncertain times, investors are unforgiving of such downgrades, and this is often reflected in rapid and large stock price declines.

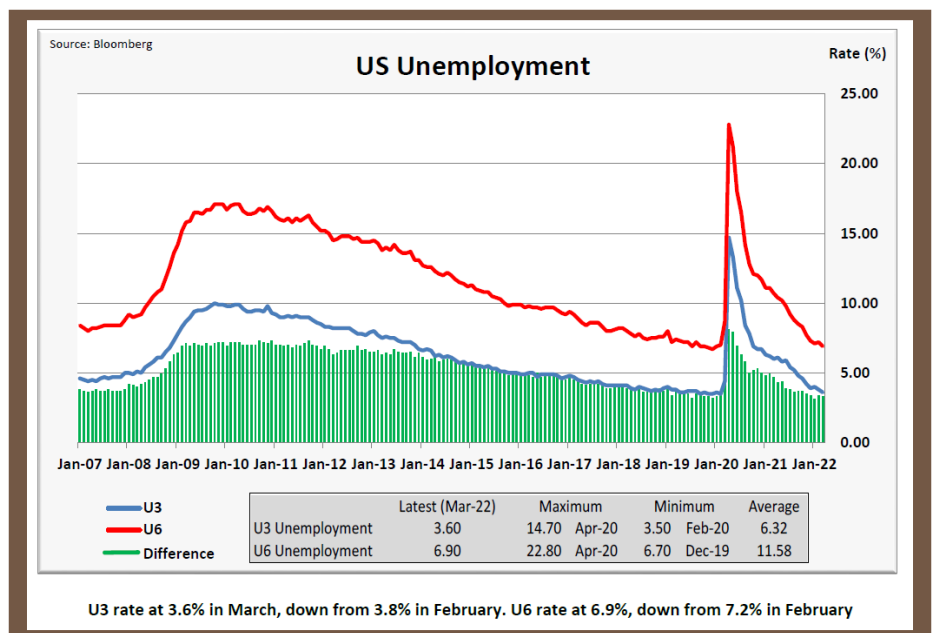
### *There is only so much that can be controlled*

With a challenging array of global events and trends contributing to economic uncertainty and inflation pressure, it is impossible to maintain a confident position as to shorter term equity market movement. The Russian invasion of Ukraine and its impact on commodities, related energy supply and demand balance, slowing Chinese economic activity routed in COVID-19

response strategies, and continued supply chain disruption are causing predictive models and forecasts for both industry level and specific company earnings outlooks to be less than reliable. Thus, until there is a tipping point reached where there is more certainty versus uncertainty, as to these influencers on equity markets performance, “sizing” the overall exposure to equity markets through a portfolio size “stress testing” is a useful and conservative tool for risk management, particularly given potential shorter term market volatility in the coming months.

### *Weather the shorter term, Focus on the longer term*

The impact the Fed does and will have on how high interest rates rise will be a primary driver for both equity and bond performance in the coming year. As rates rise, the expectation is that





## EQUITY STRATEGY

economic activity will slow. In the short term, this may negatively impact actual earnings versus analyst expectations, as discussed earlier. Rising rates also create a competitive element for those dollars that may have been invested into equity holdings, since fixed income holdings may generate a return in the form of interest income that is sufficient for investors to choose the more conservative alternative. Additionally, shorter term volatility may increase further, as equity investors fear that collateral damage from Fed action and world events would likely cause the economy to skid into recession, as many economists are now predicting. However, we believe the recessionary concerns are only a short term dynamic. Strong fundamentals exhibited by both corporations and consumers and the eventual resolution to a number of negative influencers, such as supply chain problems and geopolitical unrest, should support a longer term recovery from any damage the world economies may suffer from inflation pressure and related government response.

Clarity about the economic future will come in the coming quarters, as new data is evaluated and the impact of rate hikes is felt in the economy. This information will

provide visibility into the path that the economy will most likely take as rate hikes slow the economy, stabilize inflation, and ultimately lead to recovery. Continued focus on a blending of value oriented, investment grade companies with competitive dividends and conservative, growth-oriented leaders, we believe will ensure equity investors stay focused on the longer term and guide patient utilization of shorter term market volatility. These factors continue to frame buy in points to build positions in such holdings.

With ongoing Fed rate hikes and economic data releases that reflect their impact, we believe these “buy in points” will occur over the next six months. Value-oriented companies represent more immediate investment opportunities given the benefit of dividend yield, current earnings, and more transparent business models aligned with a slowing/uncertain economy. In addition, conservative, industry leading, growth-oriented companies will also benefit the equity investor as such a combination incorporates a focus on participating in both short term economic uncertainty (value) and the inevitable economic recovery that comes, post impact of inflation fighting (growth). ♦





## *ALM STRATEGY* *2022 Outlook*

As 2021 was a very strong year for community banks, 2022 has big shoes to fill. Unfortunately, many of the tailwinds that boosted performance last year do not exist this year, such as PPP loan fees, a robust residential mortgage market, including historically high loan sale gains, and solid equity market performance (although we could be surprised!) to name a few.

However, 2022 should offer a few benefits, especially during the first three or so quarters of the year, driven by the Fed's expected aggressive tightening cycle. Deposit rates typically lag in an up rate cycle, but should lag more than normal in the current cycle given the high levels of excess liquidity remaining on financial institution balance sheets. Liquidity is certainly not as plentiful as it was in the recent past, but is more than enough to keep many institutions on the sidelines when it comes to fighting for additional deposits. In fact, we have seen very few actually looking to attract new deposits, which should not be surprising given data from our recent client comparison studies. Consider the following

## ALM STRATEGY

median data, each from the end of the listed year:

*2019 2020 2021*

*Loan Grwth: 3.1% 5.0% 1.8%*

*Dep. Grwth: 2.5% 17.0% 10.5%*

With deposit growth significantly outpacing loan growth over the last two years, liquidity is strong for the majority of institutions (actually too strong for many) but tight for the very few. As a result, we have spoken with many clients over the last couple months who plan to hold the line on deposit rates for the foreseeable future, with some (half in jest of course) who claim they will 'never' raise deposit rates. Never is a long time, but the bottom line is that deposit rates will likely remain near current levels for an extended period. In addition, a number have set a 1% Fed Funds target as the level where they will first start to consider adjusting deposit rates, but not before.

The combination of Fed tightening with excess balance sheet liquidity and a longer assumed lag time leads to higher margins, likely through at least the third quarter of 2022. Once liquidity drains a bit and institutions start to actively attract deposits, margins will then be driven by the ability to continue lagging in the face of growing industry competition. This switch could start after Q3, but for institutions with higher levels of liquidity,

this could be pushed into Q1 or Q2 of 2023.

A second key benefit seen so far in 2022 is investment spreads at 2 year high levels, which is offsetting the impact of the relatively flat Treasury curve. While this makes investments much more attractive from a new purchase perspective, it has the opposite impact on existing holdings. This could become a topic of conversation with stakeholders once the March quarter end investment reports are reviewed.

### *Lending Environment*

Lending has been driven as usual by residential and commercial real estate, but each has come under pressure recently, but for different reasons. Res mortgage lending continues to be impacted by a lack of inventory, curtailing the availability of new loans. Limited supply is driven by a number of factors, including the ability to work from home; pre-pandemic, job seekers would be forced to move potentially across the country for a new job opportunity, but now that working from home has become commonplace, that is no longer the norm. As a result, houses that may have hit the market in the past due to job transfers are less likely to be sold due to the more flexible working arrangements of today.

In addition, the recent run-up in mortgage rates should crimp demand at some point, while also

## ALM STRATEGY

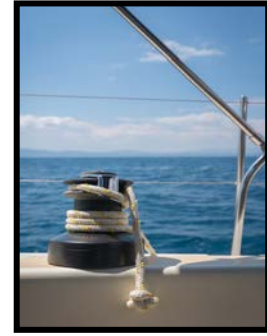
virtually eliminating the benefit of refinancing (cash-out refi's are another story, however). With the rapid rise in rates, though, rather than crimp demand it seems to be steady, as buyers may feel pressure to jump in now before rates move even higher. At some point demand will wane due to higher rates, but we are not quite at that point yet. The rise in rates has also resurrected a long forgotten offering- the adjustable rate mortgage. With fixed rate res loans in the mid-high 4% range, a 5/1 ARM around 4% seems attractive to both borrowers and lenders; from the lender perspective, 4% should provide a decent spread over the Fed Funds terminal rate in this cycle (current EPG projection is 2.50%), while offering a far more attractive spread over funding costs, which remain historically low and will lag significantly on the way up. For a borrower, a 75bp reduction should provide enough of a savings to attract borrowers that could have been priced out with rates nearing 5%. Although we have not seen significant volume yet in the loan type, momentum is building. With that said, with volume likely to slow later in the year, front loading 2022's fixed rate mortgage activity at current rates remains attractive.

Commercial real estate lending has seen challenges of its own lately, as remaining high liquidity levels and a challenging res market force banks to focus more energy on CRE. As a result, borrowers have more power

today, and are lobbying for better deal terms than at any point in the past. These include amortization periods out to 30 years, 10 year rather than 5 year fixed rate locks, and even interest only periods of up to 5 years. This power has impacted pricing, resulting in much skinnier spreads than seen traditionally; the days of pricing a high quality 5 year CRE deal at FHLB +200 basis points seem long gone. With deals pricing anywhere in the mid/high 3% to high 4% range, a typical loan with a 4.25% rate equates to a spread of only 110bp over the FHLB curve, which is historically tight. In fact, some CRE rates are so low that they are pricing under 30 year res mortgage rates. Even at these tight spread levels, if we believe that the terminal Fed Funds rate will be in the 2.50% range, a CRE loan at 4.25% or 4.50% should be accretive through this current tightening cycle.

### *Moving Forward*

Although loan rates remain low from a historical spread perspective, excess industry liquidity levels should provide ample opportunity to lag deposit rates, boosting margins. As liquidity declines over time, we may return to a more 'normal' environment where financial institutions need to work to attract deposits.



For now, continuing to add assets at current attractive levels (and front-loading 2022 growth if possible) should lead to solid performance in 2022. ♦



EPG, Inc. is proudly celebrating 25 years serving community based financial institutions with investment and asset/liability solutions.

**The ADVISOR is a publication of EPG Incorporated**

<b>Jon Rankin</b> Contributing Author/Editor	<b>Scott Miller</b> Contributing Author
<b>Jason Beshansky</b> Illustrator	<b>Nick Papageorge</b> Contributing Author
<b>Dave Thomas</b> Contributing Author	<b>Daniel Dube</b> Publication Coordinator

**All Rights Reserved.**

Copyright EPG Incorporated 2022. This newsletter has been prepared by EPG Incorporated and is being circulated for general information only. EPG Incorporated is not making any recommendations or soliciting any action based upon the information contained in this newsletter and the views expressed above do not constitute and may not be relied on as investment advice. Nothing in this newsletter is an offer or solicitation to buy or sell any security. Although the newsletter may include investment related information, nothing in this newsletter is a recommendation that you purchase, sell or hold any security or other investment, or that you pursue any investment style or strategy. Nothing in this newsletter is intended to be, and you should not consider anything in this newsletter to be, investment, accounting, tax or legal advice. The market analysis, estimates and similar information, including all statements of opinion and/or belief, contained in this newsletter are subject to inherent uncertainties and qualifications and are based on a number of assumptions. You should carefully review the information provided regarding such analysis and assumptions. All information is provided on an "AS IS" basis only. The material in this newsletter is based upon information that EPG, Incorporated considers reliable, but no representation or warranty (express or implied) is being made that such information is accurate or complete, and it should not be relied upon as such. EPG Incorporated shall not have any liability for the accuracy of the information contained herein, for delays or omissions herein, or for any results based on the recipient's use of the information. The views and opinions expressed above are as of the date of this commentary only and are subject to change at any time based upon market or other conditions. EPG Incorporated disclaims any responsibility to update such views. This newsletter is confidential and is not to be reproduced or distributed to persons other than the recipient and is intended solely for their internal use. Certain transactions and instruments discussed in this newsletter give rise to substantial risk and are not suitable for all investors. EPG Incorporated, or persons involved in the preparation or issuance of this material, may from time to time have long or short positions in, or buy or sell, securities, futures, or options identical or related to the securities and instruments mentioned herein. This material has been issued by EPG Incorporated, which may have acted upon or used this research prior to or immediately following its publication. It should not be assumed that any of the instruments discussed in this newsletter were, or will prove to be, profitable. Notwithstanding the foregoing, nothing contained in preceding paragraph shall constitute a waiver by you of any of your legal rights under applicable U.S. federal securities laws or any other laws whose applicability is not permitted to be contractually waived.

205 Newbury Street, Suite 403, Framingham, MA 01701 • 781•235•2666 or  
1•800•535•4544 Fax: 781•235•9688 • [www.epgadv.com](http://www.epgadv.com)