## Financial Services

# KeyBank \$ 

## Recommendation: HOLD

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## Company Overview

KeyCorp (KEY) is a financial services company. It is a Midwest regional bank headquartered in Cleveland, Ohio since its founding in 1994. KeyCorp (also known as KeyBank) is a holding company offering a wide range of services including retail and commercial banking, investment management, and consumer finance. The company operates through two main segments, Consumer Bank and Commercial Bank, providing products such as deposit accounts, personal finance, investment banking services, and lending solutions. The Commercial Bank segment caters specifically to middle market clients across sectors such as consumer, energy, healthcare, and technology, highlighting KeyBank's targeted approach to industry-specific financial needs. KeyBank maintains over 1,000 branches and over 40,000 ATMs, which are in states like Ohio, Michigan, Illinois, Iowa, and Michigan and are continuing to spread throughout the Midwest.

## Stock Performance Highlights

| 52 week High | $\$ 15.86$ |
| :--- | ---: |
| 52 week Low | $\$ 8.53$ |
| Beta Value | 1.27 |
| Average Daily Volume | 16.15 M |

## Share Highlights

Market Capitalization $\quad \$ 13.75$ b
Shares Outstanding 927.47 M

Book Value per share
EPS (period??) \$12.96

P/E Ratio
Dividend Yield
Dividend Payout Ratio $93.18 \%$
$\begin{array}{rrr}\text { Current } & \text { Price } & \$ 14.61 \\ \text { Target Price } & \$ 14.13-\$ 16.89\end{array}$

## Company Performance Highlights

ROA
0.51\%

ROE
7.19\%

Total Revenue
$\$ 10.397$ b

## Financial Ratios

Current Ratio 0.40
Debt to Equity 1.58\%

## KEY Investment Thesis

We recommend a HOLD rating on KeyCorp due to the bank's optimistic future earnings projections, which are subject to the cyclical nature of the financial services industry. Our decision is influenced by a combination of deteriorating profitability ratios, a challenging macroeconomic outlook, and the bank's valuation in comparison to its peers.

## Drivers of Thesis

- Strategic Positioning: KeyCorp's strategic positioning during a period of industry turbulence appears to have been a critical factor in explaining its lower margins relative to the competition. In the face of a liquidity crunch and rising capital costs, exacerbated by the SVB collapse and its impact on the commercial real estate sector, KeyBank's decision to maintain a diversified deposit base and a strong capital position played a significant role. ${ }^{25}$
- Peer Comparisons: Compared to other regional banks of similar size and region, KeyCorp shows lower performance metrics, such as ROE (7.19\%), ROA ( $0.514 \%$ ), and NIM (2.17\%). KeyCorp also sits in the lower end for $\mathrm{P} / \mathrm{B}$ (1.11). These metrics are integral to evaluating KeyCorp's operational effectiveness and its capacity to convert assets and equity into profits.


## Risks to Thesis

- Slowing Economy: The financial sector is inherently sensitive to interest rate environments, and a recent concerning development is the inversion of the yield curve. 2 yr is $4.93 \%$ and 10 yr is $4.63 \%$. An inverted yield curve is often viewed as a predictor of
economic recession. For KeyCorp, this inversion could signal a challenging road ahead. It may compress net interest margins as the cost of shortterm borrowing could exceed the returns from longterm lending, which is a key income source for the bank.
- Credit Risk Exposure: Loans are a big part of Keys yearly revenue. Credit Risk exposure is a critical concern for any banking institution, including KeyCorp, because it directly affects the bank's asset quality and profitability. For KeyCorp, the exposure to credit risk in both its commercial and consumer loan portfolios is particularly pertinent due to the potential for defaults which can lead to financial losses. In the event of rising credit risk, it will require KeyCorp to set aside more capital as loan loss provisions, which can diminish profits.


## One Year Stock Performance



Figure 1: Key vs SP500 ${ }^{2}$

## Economic Analysis

## U.S. Federal Funds Rate

The federal funds rate has a major impact and influence over the banking sector as it is a benchmark used to gauge interest rates over a short period of time for banks. The Fed Funds rate has stayed at $5.33 \%$ since last August and rose dramatically before that going from $0.08 \%$ at the end of 2021 to the beginning of $2022 .{ }^{1}$ We believe that there will be 2-3 cuts before the end of the year but not as soon as they were predicting at the start of 2024. We think that the Fed could cut the rate down to anywhere between $5-5.25 \%$ by the end of 2024 . This doesn't help banks because it makes the cost of borrowing more therefore deterring the amount of loans that they write.


Figure 2: Effective Fed Funds Rate ${ }^{1}$
We think that the Fed will keep the next rate constant while seeing what inflation data looks like at that next meeting and if it shows a decline, they could cut rates at the following one.

## U.S. Real Gross Domestic Product (GDP)

The real GDP represents the total value of goods and services produced each year. It is also inflation-adjusted which indicates how the economy is doing. Real GDP is key to banking, when there is a high GDP it allows the businesses to borrow more money from these banks at a more favorable rate, which allows the companies to saving more, investing more, and having the ability to pay back loans easier.

U.S. Bureau of Economic Analysis

Seasonally adjusted annual rates
Figure 3: Real GDP Growth on a quarterly basis ${ }^{3}$
Looking at figure 3, the US has been stable besides the outliers in Q2+3 in 2020. ${ }^{3}$ In Q4 of 2023 real GDP declined due to the slowdown of federal government spending, residential fixed investments, and consumer spending. It also saw a downturn in private inventory and imports. We think that real GDP will raise around the $.25 \%$ per quarter $\mathrm{Q} / \mathrm{Q}$.

## U.S. Unemployment Rate

The unemployment rate is another key indicator for banks due to the nature of the economy performs well when the unemployment rate is low, and vice versa. When consumers have more money and are working constantly, they want to spend their earned money
therefore leading to people borrowing more money from the banks. This also relates to the previous two topics covered due to when the Fed Funds rate and GDP are more favorable the more money is borrowed. It also means that there will be less risk for default on loans because the customers have a positive cashflow.


Figure 4: Unemployment Rate ${ }^{4}$
As Figure 4 shows there seems to be a variety of changes in the unemployment rate since the 1950's. It is near the lower portion of the historical figures with it being at $3.8 \% .^{4}$ We think that it will increase and eventually level off for the next few years anywhere between 4.5-5\%.

## Consumer Pricing Index (CPI)

The CPI is the measure in changes in prices paid by consumers for goods and services in a set period. This can also help show what inflation is doing even though it only measures the consumer aspect of it. They can be used to help set inflation targets. When you have a higher CPI, it indicates that there is higher inflation, while falling CPI indicates a lower inflation.


Figure 5: CPI Rate ${ }^{5}$
As seen in figure 5, the CPI rate has been gradually declining along with the fed funds and inflation rates. CPI did beat prior rates in Q1 of 2024 for $\mathrm{Y} / \mathrm{Y}$ at 3.5\% but maintained the M/M rate of $0.4 \% .{ }^{5}$ We think that as the Fed funds begins to be cut the CPI rate will follow. It will be constant until the end of the year and then begin to decline more aggressively.

## Industry Analysis

## Regional Banking Industry Description

Regional banks in the Midwest are financial institutions that offer a full range of banking services, similar to larger national banks, but with a focus on a specific geographic region within the Midwest. They are characterized by their asset size, typically ranging from $\$ 10$ billion to $\$ 100$ billion. Midwest Regional Banks play a significant role in the regional economy by supporting local businesses with loans and other financial services, contributing to economic growth and stability in the Midwest.

## Regional Bank Revenue Streams

The regional banking environment has a variety of revenue streams. A majority of their revenue comes from the interest that they receive off their consumer and commercial loans. They also earn revenue off noninterest items like ATM fees, wealth management, and depository accounts. ${ }^{6}$ Throughout the industry they stay similar company to company. Figure 6 below shows how the revenue is segmented throughout the reginal banking industry.

Regional Banks in the us
Products \& Services Segmentation
Industry revenue in 2023 broken down by key product and service lines.


- Real estate loans (\$114.4bn) $35.2 \%$ Personal loans (\$40.6bn) $\quad 12.5 \%$

Commercial and industrial loans (\$38.3bn) 11.8\% Credit card loans (\$20.1bn) $6.2 \%$
Depository services and other noninterest-income generating products (\$75.4bn) $23.2 \%$
Other (\$36.1bn) 1.1\%
Source: IBISWorld
-
Figure 6: Products and services segmentation/revenue ${ }^{25}$
As you can see in the chart, $66 \%$ of the industries revenue comes from interest and loans offered through their bank. Each bank is different, but these are the main segments in the industry in $2023 .{ }^{25}$

## Porter's Five Forces

## Threat of New Entrants (Low):

Entry is tough due to the challenging nature and length of time it takes to enter this industry. It is also very expensive to open a regional bank. It is difficult to grow your bank in this
industry and to the level needed to be able to compete with some of the larger banks therefore unless you are a direct subsidiary of a larger bank than it will take a lot longer, if at all to gain that attraction to grow your bank.

## Threat of Substitutes (Medium-High):

Similar services are provided by non-bank financial companies. Companies such as Sony, General Motors, and Microsoft compete with banks by offering financing on their large big-ticket items, often at a $0 \%$ rate. With the new wave of technology coming there could be apps developed that take place of your bankers or even bank. Banking is a large piece in the economy so the eventual depletion of them will likely never happen, but we could see things like PayPal, Venmo and other digital wallet items like ETF's or crypto currencies become more popular and a better regulated thing as everyone becomes more familiar with them.

## Bargaining Power of Customers (Low):

If a customer has all their money tied to one bank, they are unlikely to switch. Most banks are similar in the way they offer rates because they all go off very similar ideas and items therefore most people aren't going to switch for the .1$.2 \%$ increase you could get. On the other hand, when it comes to large corporate clients, they have a lot of bargaining power as banks will battle for their service and try to keep the fees to a minimum and offer the best rates they can.

## Bargaining Power of Suppliers (Low-Medium):

Suppliers of capital do not have significant leverage over banks, however there is a bigger threat of human capital being lured away by other banks. As revenue from interest and consumer deposits are the most important part of a bank's strategy, they try to undercut some of the larger banks by offering better rates but sometimes doesn't work out as that can cause decreases in the profit margins.

## Intensity of Competitive Rivalry (High):

Internal competition is high within the industry with Large commercial banks, like Bank of America, Wells Fargo, JP Morgan, Chase and Citigroup have large national networks and economies of scale and can offer more favorable rates. With these banking being such a large industry the regional banks aren't just facing the competitiveness of the U.S. market. With banks being around the world some foreign banks can offer a more favorable rate due to the fact of the regulations be less stringent in their countries.

## Industry Trends

## Technology

The advancement in today's technology from when the industry first started. With today being almost fully online on banking apps or shopping online it makes the most sense to keep up on technology and try to focus on improving and making sure the best platform is available for the customers. According to Forbes, $78 \%$ of adults prefer to bank via a mobile app or some sort of online version. ${ }^{7}$ With the large majority of things moving online it helps attract the younger generations as they are more familiar and do everything else
online. It also helps keep everything consolidated in one easy access place on your phone or computer. It may be harder for smaller banks to maintain the investment it takes to try and improve the apps and technology every year, which leads back to the competitiveness of the banking industry. That's also why larger banks can continue to grow at high rates compared to the lower-level banks. They have more capital investment that they can put into these new things to keep them ahead of the curve.

## Regulation

The banking industry is one of the most highly regulated industries in the United States. The FDIC and the Federal Reserve or some of the biggest agencies that regulate the industry. Some of the most recent news in this portion of the banking industry would be that after the 2023 Silicon Valley Bank collapse that any bank that has over \$100B in assets to hold long-term debt exceeding $6 \%$ of risk weighted assets or $3.5 \%$ of the average total assets whichever is greater. ${ }^{8}$ This will help the banks have more of a cushion before the unsecured depositors are impacted. This affects Key because they have from year ended December 31, 2023, \$188B in total assets. ${ }^{9}$ Since the SVB collapse the regulatory bodies are spending more time to carefully look at different banks so they can try to keep it under control next time.

## Peer Comparison

We have chosen the following regional banks to compare to KeyCorp. These are based on the similarities in size, location, and services they provide. We chose to compare Fifth Third Bancorp (FITB), Citizens Financial Group (CFG), PNC Financial Services Group (PNC), and Comerica Incorporated (CMA). KEY is on the smaller side for a regional bank, but they all offer the same services just to different scales.

For each bank we have chosen to use the following ratio to compare the similarities and differences in each other. We are using price to earnings $(\mathrm{P} / \mathrm{E})$ ratio, return on equity (ROE), price to book (P/B), dividend yield, and net interest margin (NIM). A higher P/E ratio means that the stock price is high and could lead to a decline in price, while a lower P/E ratio means that the stock price could improve. That isn't always the thing though just because it is leaning one way doesn't mean It has to do that. ROE shows how effective the bank is at generating profits from money the investors put in, the higher the ROE the more effective the bank is at using the investors funds. NIM shows net profits on interestearning assets. Interest earned is a main revenue source for banks, NIM is a key indicator for evaluating overall profitability so the higher the better. $\mathrm{P} / \mathrm{B}$ is the ratio of the market value to the company's book value of equity. Generally, anything under a $\mathrm{P} / \mathrm{B}$ of 3 is considered good. Dividend yield is the percentage of dividends paid out per share price. Anywhere between $2-6 \%$ is considered good and sustainable. If you get too high of a dividend yield it looks attractive but is very unsustainable in the long run.

## KEY vs FITB

Fifth Third Bancorp is a regional bank mainly located in the midwestern and southwestern U.S. from Wisconsin down to Florida. It is headquartered in Cincinnati, OH. ${ }^{13}$ They have a market cap of $\$ 22.79 \mathrm{~B}$. Looking at figure 7, they have similar ratios in each category. FITB is a bit larger of a bank and has more to offer therefore is favorited against Key in some ratios.


Figure 7: KEY vs FITB ${ }^{15}$

## KEY vs CFG

Citizens Financial Group is a regional bank located in the Eastern part of the U.S. It is headquartered in Providence, RI. They have a market cap of $\$ 15.191 \mathrm{~B}$ which is the closest to Key of any of its peers. ${ }^{10}$ Looking at figure 8, the ratios are closer together than with FITB. It seems that CFG is very close related to them in all but their $\mathrm{P} / \mathrm{E}$ ratio. This can help when looking at the company so you can see how their similarities are doing rather than looking at only Key to see if that's how you want to invest.


Figure 8: KEY vs $\mathrm{CFG}^{16}$

## KEY vs PNC

PNC Financial Services is a regional bank located in 27 states. It is headquartered in Pittsburgh, PA. It has around 2300 branches and 60,000 ATM's. ${ }^{11}$ They have a market cap of $\$ 59.47 \mathrm{~B}$ which is on the higher end of the comparison. Looking at figure 9, it seems that PNC also has them beat in every category except dividend yield which is a reoccurring factor. This can raise concern for investors in key.


Figure 9: KEY vs $\mathrm{PNC}^{17}$

## KEY vs CMA

Comerica bank is a regional bank located in the midwestern U.S. They are headquartered in Dallas, TX. They have the smallest market cap at \$6.789B. ${ }^{12}$ Looking at figure 10, it seems that CMA also has them beat in every category except dividend yield which is a reoccurring factor. Dividend yield and P/B are the closest to Key. Even though those are close we still need to pay attention to the others, and they are a good distance apart from each other showing the Comerica is showing to have more upside than Key.


Figure 10: KEY vs BOK ${ }^{18}$

## Tier 1 Capital Ratio

Tier 1 capital is important to bank because it compares a bank's equity capital with its risk-weighted assets. This capital is used to fund business activities for clients. It compromises common stock and discloses reserves. This also shows how safe the bank is and how it uses capital before they must stop operations. It must be greater than 6\% of its risk-weighted assets. ${ }^{19}$ Therefore the higher its ratio is the safer the bank generally is. Figure 11 shows that Keycorp has a ratio that competes with its peers therefore has the same risk level as others in its category.


Figure 11: Tier 1 Capital Ratio's in the industry ${ }^{14-18}$

## Summary of Industry Analysis

Industry Leaders will be the banks that can remain the most profitable. When comparing Keycorp to the other companies it shows that it isn't going to be the one of the leaders in the regional banking sector. Their dividend yield is attractive for investors that are looking for dividend income mainly but there are other banks that have more upside potential.

## Company Analysis

## Company Overview and Business Description

KeyCorp is a bank involved in the financial services industry which serves in various facets. It was founded in 1958 and headquartered in Cleveland, OH. They have over 40,000 ATM locations as well as over 1,000 full-service branches. ${ }^{20}$ These services include "commercial banking and leasing, investment management, consumer finance, student loan refinancing, commercial mortgage servicing, as well as an investment banking arm. It primarily operates through its consumer bank and commercial bank segments. Consumer Bank operations consist of deposits, investments, personal finance, financial wellness services, lending, mortgage and home equity, student loan refinancing, credit card, treasury and business advisory services. Commercial Bank segment operates in the middle market in seven industries: consumer retail, energy, healthcare, industrials, public finance, real estate, and technology. ${ }^{20}$


Figure 12: Key state locations ${ }^{20}$


Figure 13: NIM for Key and peers ${ }^{14-18}$
As figure 13 shows, Key slacks some in the NIM category when comparing to other banks. As we talked about above during the per comparison NIM is the net income earned off interest bearing assets. This shows that Key doesn't generate as much revenue since interest is one of the regional banks key income segments.

## Strategy and Acquisition Growth

As a regional bank in the Midwest U.S. Keycorp is working between the small local banks along with the large, popular banks.

KeyCorp is a relationship-based business that is focused on growing, being disciplined in capital management. KeyCorp prioritizes 5 strategic initiatives to enhance shareholder value:

1. Profitability growth: generate positive operating leverage, grow revenue and create more efficient operating environment. Organic growth will expand client base and create a sustainable business.
2. Acquisition expansion of targeted client relationships: client-focused business; focus on markets and clients in which it can be most relevant.
3. Effectively managing risk and reward: identify, measure, and manage risks across company, maintain integrity while maximizing profitability
4. Maintaining financial strength: use already strong balance sheet to drive long-term shareholder value. Sustain strong reserves, liquidity, and capital.
5. Engage/create a high-performing, talented, and diverse workforce: relationships very important in this business; engage employees to provide clients with great ideas, service, and solutions.

## Financial Analysis

Keycorp has been on a slight decline in Net Income and EPS since 2021. The past 3 years have been tough with the rising interest rates as well as COVID happening. I KeyCorp reported on January 18, 2024, and reported net income of $\$ 30$ million which was down from $\$ 266$ million in Q3 of 2023. Their CEO said they invested in a differentiated feebased business that should gain attraction as the capital markets improve. They had an increase of noninterest expense of $\$ 216$ million from Q4 of 2022 but a major factor in that was they had a $\$ 190$ million charge from the FDIC which was related to efficiency expenses and a pension settlement. Their loan department also decreased $\$ 3.7$ billion from Q3, which was driven by Key's planned balance sheet optimization efforts. It also had $\$ 2.5$ billion in commercial and industrial loans and consumer loans declined by $\$ 727$ million, driven by lower consumer mortgages and home equity lines. They declared a dividend of $\$ .205$ per common share for the first quarter of 2024. Taxable equivalent net interest income increased by $\$ 5$ million which was caused by Key's actions to mitigate interest rate risk, improve funding mix, and elevate liquidity levels. Overall while their earnings were lower, they have plans to help them get back on track and to help navigate the markets as they start to improve. ${ }^{21}$

## KEY EPS and Net Income



Figure 14: Key's EPS and Net Income last 3 years ${ }^{14}$

## SWOT Analysis

## Strength

Keycorp has a few major strengths that are working well for them and bringing them more business. They have a high level of customer satisfaction which is leading to bringing more customers to their banks, as well as having a good client retention level. They also have a strong distribution network of ATM's and other service-based items through their locations. As well as a strong FCF which helps them
because it shows they aren't over working the assets they have. ${ }^{23}$

## Weakness

Some of KeyCorp's weaknesses are they have limited success outside of their core business which is the loans and ATM's. Their profitability ratio and net contribution percentage are below industry average, and their investment in R\&D isn't on a competing level which hurts them by not having the edge on their competitors when a new product comes out rather, they are the ones following the crowd when it comes to new items, rules entering the market. ${ }^{23}$

## Opportunity

Some of the opportunities that Keycorp has is that inflation rates are lowering down allowing people to have more cash therefore will spend more and lead to more loans and leads to more customer spending. Their stable FCF provides the opportunity to invest in other segments that they aren't in now or should add to their book of business. ${ }^{23}$

## Threats

Some threats that Keycorp has is the weakening and vulnerability that the global economy is in now, making it harder and harder to lower that inflation and that leads to people not being able to save as much as the necessities are more expensive. Increasing regulatory changes in the banking industry are always happening and especially with the SVB bank collapse they are going to try to find ways to not let that happen again. New technology can also hurt them by taking away the role that they do, it can help if it's on their side which leads to the needing to increase their R\&D expenses so they can get ahead of the curve. Finally intense competition is also a threat. It's time telling how long it will be before some of the larger national banks eventually run all the small banks out and everything is under one roof. ${ }^{23}$

## Valuation Analysis

## Overview

The models we built led us to a target price for Key of $\$ 14$ to $\$ 17$. Our models incorporate the beforementioned economic, industry, and Key-specific factors to reach assumptions that we put into our Discounted Cash Flow Model (DCF), Economic Profit Model (EP), Dividend Discount Model (DDM), and Relative Valuation Model. We believe that the DCF and EP models are the most accurate due to the key assumptions that are used in these models. Even though our estimations for prices are only \$3 apart Relative Valuation and EP, DCF are within a few cents of each other.

## Revenue Decomposition

Key's primary income comes from interest made on loans and other interest-bearing deposits. Their Interest rates on their mortgages are $7.125 \%$ for a 30 year and $6.625 \%$ for a 15 year. ${ }^{24}$ We do expect rates to fall towards the end of the year to somewhere around the $6 \%$ and $5.5 \%$ and to continue to decrease as the interest rates
keep decreasing. Most of the interest comes off commercial loans compared to the consumer portion of it.
A smaller portion of their income comes from non-interest-bearing deposits like credit cards, ATM's, etc. We think that their noninterest income will grow at a very steady rate of around $1.5-2 \%$ through 2028.

## Cost of Equity

We used the Capital Asset Pricing Model (CAPM) to determine the cost of equity. We used a risk-free rate of $4.6 \%$ (as of April 15, 2024, close) which is the 10-year treasury rate. We used a Beta of 1.27 found from yahoo finance and it is calculated on a 5 year monthly moving average. Lastly, we used the Equity Risk Premium of $4.33 \%$ from the Damodaran website and is the 12 -month cash yield. After having all our inputs in we arrived at a cost of equity for Key to be $10.10 \%$ as of market close April 15, 2024.

## Discounted Cash Flow and Economic Profit

Our Equity DCF and EP models gave us a price of $\$ 16.89$ which is $13.43 \%$ higher than what Key is trading at, at close today. We think that with the key assumptions needed to calculate these equations that they were going to be the most accurate. We forecasted cash flows to equity after finding a growth rate that affected Key's expected net income. We then discounted the cash flows by the cost of equity after finding the continuing value for equity. After plugging all the numbers into the equation we came to the final price for these models of $\$ 16.89$ which was also the highest of all of the valuation models.

## Dividend Discount Model (DDM)

In our Dividend Discount Model valuation, we used the current value of EPS, current value ROE and cost of equity to calculate the implied price as of today of $\$ 14.13$ for Key. We expect the dividends per share to rise until it hits around that $\$ 4$ mark. As stated in the peer comparison they have the highest dividend payout ratio. Through the DDM calculation we arrived at the intrinsic value of last FYE of \$13.94 and after calculating the partial year of it we arrived at the price of $\$ 13.94$. Although this is the lowest valuation that we have for the stock we think it is good to look at this to see how the dividends are impacting the future pricing.

## Relative Valuation Model

For our relative valuation model, we chose the close competitors of Fifth Third Bancorp (FITB), Citizens Financial Group (CFG), PNC Financial Services Group (PNC), and Comerica Incorporated (CMA). We chose them because of their locations and size. We also would look at FactSet to see if there were any changes to the peer comparisons. We originally had U.S. Bancorp and BOK Financial but decided the other two we added were more similar scale to Key. After we changed those companies out, we evaluated each company on Price to Book (P/B) and Earnings Per Share (EPS). We focused more on the $\mathrm{P} / \mathrm{B}$ ratio because it relates to the banking industry the most. Key's P/B ratio was 1.11 which was
slightly lower than the average of 1.26 and leads us to the price of $\$ 16.38$. This is right around what we got from the DCF and EP models so it seems that those were the most accurate valuation pieces so we will lean towards these prices.

## Sensitivity Analysis

We performed sensitivity analysis on different economic factors and company metrics. Some of these metrics are out of the company's control, like tax rate and the ERP. Interest on loans and other main sources that are tested can be influenced by a change in company strategy.

## Beta vs ERP

We used the Beta of 1.27 and the ERP of $4.33 \%$ which was based on the historical data and found on Damodaran's website. Looking at this table shows us that Key isn't as sensitive to these changes as others. As Beta increases, we can see a decrease in the pricing and vice versa. It seems that where the ERP is at now is the sweet spot because when you go outside of about $.1 \%$ up or down it starts to change more drastically. We can see a price range of anywhere between $\$ 17.59-\$ 18.48$.

|  | Beta |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 觅 | 16.89 | 1.12 | 1.17 | 1.22 | 1.27 | 1.32 | 1.42 | 1.52 |
|  | 4.03\% | 18.55 | 18.18 | 17.82 | 17.48 | 17.16 | 16.56 | 16.02 |
|  | 4.13\% | 19.00 | 18.62 | 18.26 | 17.91 | 17.59 | 16.98 | 16.43 |
|  | 4.23\% | 19.23 | 18.85 | 18.48 | 18.14 | 17.81 | 17.20 | 16.64 |
|  | 4.33\% | 19.23 | 18.85 | 18.48 | 18.14 | 17.81 | 17.20 | 16.64 |
|  | 4.43\% | 19.00 | 18.62 | 18.26 | 17.91 | 17.59 | 16.98 | 16.43 |
|  | 4.53\% | 18.55 | 18.18 | 17.82 | 17.48 | 17.16 | 16.56 | 16.02 |
|  | 4.63\% | 17.94 | 17.57 | 17.22 | 16.89 | 16.57 | 15.99 | 15.46 |

CV Growth vs Risk-free Rate
The 10-year treasury yield is our risk-free rate which is $4.66 \%$. The CV Growth is $2.5 \%$. This is always changing on a day-to-day basis. With the economic outlook for the United States, we could see it changing dramatically in the next few years. We wanted to see how those changes would affect Keycorp. Looking at the table we can see that the target price is more than our forecasted prices. The prices from the table vary from $.1 \%$ either way on the table and that gives us a price range of \$17.49-17.68.


CV ROE vs Tax rate
There was a tax cut back in 2018 where Key's tax rate went from $36 \%$ down to around $22 \%$ which has helped them produce larger profits due to not having to pay as much to the government. Key's CV ROE is $12.46 \%$. We wanted to see how these would affect Key's price. When looking at the table below we can see there is a very tight range of price so we can tell that these aren't the biggest factors in Key's price. When we use the tables and go . $1 \%$ either way in any of the variables we get a price from $\$ 16.74-\$ 16.76$. Throughout the whole table
we get a price range of $\$ 16.74-\$ 16.89$.
CV ROE

|  |  |  |  |  | CV ROE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16.89 | 12.01\% | 12.16\% | 12.31\% | 12.46\% | 12.61\% | 12.76\% | 12.91\% |
|  | 22.30\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.40\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| \% | 22.50\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| $\stackrel{0}{x}$ | 22.60\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| $\stackrel{\square}{\bullet}$ | 22.70\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.80\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.90\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |

## References

1 "Federal Funds Effective Rate." FRED, 1 Apr. 2024, fred.stlouisfed.org/series/FEDFUNDS.
${ }^{2}$ KeyCorp (Key) Valuation Measures \& Financial Statistics, finance.yahoo.com/quote/KEY/key-statistics/. Accessed 12 Apr. 2024.

3"News Release." Gross Domestic Product, Fourth Quarter and Year 2023 (Second Estimate) | U.S. Bureau of Economic Analysis (BEA), www.bea.gov/news/2024/gross-domestic-product-fourth-quarter-and-year-2023-secondestimate\#:~:text=Real\ gross\ domestic\ pro duct\%20(GDP,real\%20GDP\%20increased\%204.9\%2 0percent. Accessed 12 Apr. 2024.
${ }^{4 " 6}$ Unemployment Rate." FRED, 5 Apr. 2024, fred.stlouisfed.org/series/UNRATE.
${ }^{5}$ Inc., Econoday. Econoday Economic Report: CPI, us.econoday.com/byshoweventfull?fid=591540\&cust =us\&year=2024\&lid=0\#top. Accessed 13 Apr. 2024.
${ }^{6}$ Gobler, Erin. "What Is a Regional Bank? How It Differs from a National Bank." Investopedia, Investopedia, www.investopedia.com/what-is-a-regional-bank7479637. Accessed 14 Apr. 2024.
${ }^{7}$ Underwood, Jenn. "U.S. Consumer Banking Statistics 2024." Forbes, Forbes Magazine, 28 Feb. 2024, www.forbes.com/advisor/banking/banking-trends-and-statistics/.
${ }^{8}$ Wilowski, Mack. "US Regulators Unveil New Rules Targeting Regional Banks." Investopedia, Investopedia, www.investopedia.com/us-regulators-unveil-new-rules-targeting-regional-banks7963317\#:~:text=U.S.\ financial\ regulators\%2 Ounveiled\%20a,on\%20whichever\%20figure\%20is\%2 0greater. Accessed 14 Apr. 2024.
${ }^{9} 10-K t$, https://d18rn0p25nwr6d.cloudfront.net/CIK-0000091576/764e9cf0-3f88-4ec8-ab55041660d74c59.pdf Accessed 15 Apr. 2024.

10 "Citizens Financial Group, Inc. (CFG) Stock Price, News, Quote \& History." Yahoo! Finance, Yahoo!, 16 Apr. 2024, finance.yahoo.com/quote/CFG/.
${ }^{11}$ Corporate Overview, www.pnc.com/en/about-pnc/company-profile/corporate-overview.html. Accessed 15 Apr. 2024.

12 "Comerica Incorporated (CMA) Stock Price, News, Quote \& History." Yahoo! Finance, Yahoo!, 16 Apr. 2024, finance.yahoo.com/quote/CMA?.tsrc=fin-srch.

13 "About Us." Fifth Third Bank, www.53.com/content/fifth-third/en/personal-banking/about.html. Accessed 15 Apr. 2024.
${ }^{14}$ Key Financial Corporation my.apps.factset.com/workstation/navigator/company-security/ratios/KEY-US. Accessed 15 Apr. 2024.
${ }^{15}$ Fifth-Third Bank
my.apps.factset.com/workstation/navigator/company-security/ratios/FITB-US. Accessed 15 Apr. 2024.
${ }^{16}$ CFG Bank,
my.apps.factset.com/workstation/navigator/company-security/ratios/CFG-US. Accessed 15 Apr. 2024.
${ }^{17}$ PNC Financial,
my.apps.factset.com/workstation/navigator/company-security/ratios/PNC-US. Accessed 15 Apr. 2024.
${ }^{18}$ CMA Financial,
my.apps.factset.com/workstation/navigator/company-security/ratios/CMA-USA. Accessed 15 Apr. 2024.
${ }^{19}$ Grant, Mitchell. "Tier 1 Capital: Definition, Components, Ratio, and How It's Used." Investopedia, Investopedia, www.investopedia.com/terms/t/tier1capital.asp\#:~:tex $\mathrm{t}=$ The\%20Tier\%201\%20capital\%20ratio,of\%20its\%2 Orisk\%2Dweighted\%20assets. Accessed 15 Apr. 2024.

20 "Get to Know Key: Keybank." Key.Com, www.key.com/about/company-information/key-company-overview.html. Accessed 15 Apr. 2024.
${ }^{21}$ Keycorp Reports Fourth Quarter 2023 Net Income of $\$ 30$ Million, or $\$ .03$ per Diluted Common Share, investor.key.com/press-releases/news-details/2024/KEYCORP-REPORTS-FOURTH-QUARTER-2023-NET-INCOME-OF-30-MILLION-OR-.03-PER-DILUTED-COMMONSHARE/default.aspx. Accessed 15 Apr. 2024.

22 "Keycorp (Key) Q4 Earnings: Taking a Look at Key Metrics versus Estimates." Yahoo! Finance, Yahoo!, finance.yahoo.com/news/keycorp-key-q4-earnings-taking-143008770.html. Accessed 15 Apr. 2024.
${ }^{23}$ Department, Strategic Management. "KeyCorp SWOT Analysis Matrix (Strengths, Weakness, Opportunities, Threats)." Fern Fort University, Fern Fort University, fernfortuniversity.com/term-papers/swot/1433/540keycorp.php. Accessed 15 Apr. 2024.

24 "Current Mortgage Rates: Best Interest Rates Today: KeyBank." Key.Com, www.key.com/personal/home-loans-lines/mortgage/mortgage-rates.html. Accessed 15 Apr. 2024.

25 "Current Mortgage Rates: Best Interest Rates Today: KeyBank." Key.Com, www.key.com/personal/home-loans-lines/mortgage/mortgage-rates.html. Accessed 15 Apr. 2024.
${ }^{26}$ United States - Specialized Reports - Ibisworld, www.ibisworld.com/lists/us/specialized/download.asp x. Accessed 16 Apr. 2024.

## Important Disclaimer

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KeyCorp
Revenue Decomposition

| Fiscal Years Ending Dec. 31 | 2021 |  | 2022 |  | 2023 |  | $2024 E$ |  |  | 2025E |  | 2026E |  | 2027 E | 2028E (CV) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMMERCIAL BANK Interest Income (2019-Pres) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial Loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial and Industrial | \$ | 50,994 | \$ | 54,936 | \$ | 59,379 | \$ | 67,099 | \$ | 73,003 | \$ | 75,193 | \$ | 77,449 | \$ | 79,773 |
| Interest on Commercial and Industrial | \$ | 1,795 | \$ | 2,148 | \$ | 3,444 | \$ | 2,824 | \$ | 3,019 | \$ | 3,110 | \$ | 3,203 | \$ | 3,299 |
| Yield |  | 3.52\% |  | 3.91\% |  | 5.80\% |  | 4.21\% |  | 4.14\% |  | 4.14\% |  | 4.14\% |  | 4.14\% |
| Real Estate - Commercial Mortgage | \$ | 13,111 | \$ | 15,553 | \$ | 15,969 | \$ | 27,148 | \$ | 28,505 | \$ | 29,360 | \$ | 30,241 | \$ | 31,148 |
| Interest on Commercial Mortgage | \$ | 472 | \$ | 633 | \$ | 931 | \$ | 791 | \$ | 824 | \$ | 849 | \$ | 874 | \$ | 901 |
| Yield |  | 3.60\% |  | 4.07\% |  | 5.83\% |  | 2.92\% |  | 2.89\% |  | 2.89\% |  | 2.89\% |  | 2.89\% |
| Real Estate - Construction | \$ | 2,133 | \$ | 2,230 | \$ | 2,757 | \$ | 3,074 | \$ | 3,166 | \$ | 3,261 | \$ | 3,359 | \$ | 3,460 |
| Interest on Real Estate - Construction | \$ | 77 | \$ | 99 | \$ | 185 | \$ | 122 | \$ | 124 | \$ | 128 | \$ | 132 | \$ | 136 |
| Yield |  | 3.61\% |  | 4.44\% |  | 6.71\% |  | 3.97\% |  | 3.92\% |  | 3.92\% |  | 3.92\% |  | 3.92\% |
| Commercial lease Financing | \$ | 4,014 | \$ | 3,858 | \$ | 3,706 | \$ | 3,891 | \$ | 4,047 | \$ | 4,168 | \$ | 4,293 | \$ | 4,422 |
| Interest on Commercial Lease Financing | \$ | 114 | \$ | 98 | \$ | 116 | \$ | 116 | \$ | 121 | \$ | 124 | \$ | 128 | \$ | 132 |
| Yield |  | 2.84\% |  | 2.54\% |  | 3.13\% |  | 2.98\% |  | 2.98\% |  | 2.98\% |  | 2.98\% |  | 2.98\% |
| Total Commercial Loans | \$ | 70,252 | \$ | 76,577 | \$ | 81,812 | \$ | 101,212 | \$ | 108,722 | \$ | 111,983 | \$ | 115,343 | \$ | 118,803 |
| Total Interest on Commercial Loans | \$ | 2,458 | \$ | 2,978 | \$ | 4,676 | \$ | 3,854 | \$ | 4,088 | \$ | 4,211 | \$ | 4,337 | \$ | 4,467 |
| CONSUMER BANK Interest Income (2019-Pres) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consumer Loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Real Estate - Residential Mortgage | \$ | 12,254 | \$ | 19,014 | \$ | 21,442 | \$ | 20,370 | \$ | 24,444 | \$ | 25,177 | \$ | 25,932 | \$ | 26,710 |
| Interest on Real Estate - Residential Mortgage | \$ | 348 | \$ | 559 | \$ | 699 | \$ | 839 | \$ | 872 | \$ | 907 | \$ | 934 | \$ | 962 |
| Yield |  | 2.84\% |  | 2.94\% |  | 3.26\% |  | 4.12\% |  | 3.57\% |  | 3.60\% |  | 3.60\% |  | 3.60\% |
| Home Equity Loans | \$ | 8,984 | \$ | 8,107 | \$ | 7,517 | \$ | 7,602 | \$ | 7,906 | \$ | 8,143 | \$ | 8,387 | \$ | 8,639 |
| Interest on Home Equity Loans | \$ | 336 | \$ | 347 | \$ | 433 | \$ | 476 | \$ | 495 | \$ | 515 | \$ | 531 | \$ | 547 |
| Yield |  | 3.74\% |  | 4.28\% |  | 5.76\% |  | 6.27\% |  | 6.27\% |  | 6.33\% |  | 6.33\% |  | 6.33\% |
| Consumer direct loans | \$ | 5,110 | \$ | 6,487 | \$ | 6,230 | \$ | 6,354 | \$ | 6,608 | \$ | 7,666 | \$ | 7,896 | \$ | 8,132 |
| Interest on Consumer direct loans | \$ | 233 | \$ | 277 | \$ | 304 | \$ | 310 | \$ | 322 | \$ | 373 | \$ | 385 | \$ | 396 |
| Yield |  | 4.56\% |  | 4.27\% |  | 4.88\% |  | 4.87\% |  | 4.87\% |  | 4.87\% |  | 4.87\% |  | 4.87\% |
| Credit Cards | \$ | 930 | \$ | 953 | \$ | 980 | \$ | 1,008 | \$ | 1,048 | \$ | 1,090 | \$ | 1,133 | \$ | 1,167 |
| Interest on Credit Cards | \$ | 94 | \$ | 107 | \$ | 136 | \$ | 141 | \$ | 147 | \$ | 153 | \$ | 158 | \$ | 162 |
| Yield |  | 10.11\% |  | 11.23\% |  | 13.88\% |  | 14.04\% |  | 14.04\% |  | 14.04\% |  | 13.90\% |  | 13.90\% |
| Consumer indirect loans | \$ | 2,821 |  |  | \$ | 141 | \$ | 282 | \$ | 293 | \$ | 302 | \$ | 311 | \$ | 320 |
| Interest on consumer indirect loans | \$ | 90 |  |  | \$ | 1 | \$ | 2 | \$ | 140 | \$ | 146 | \$ | 150 | \$ | 154 |
| Yield |  | 3.19\% |  |  |  | 0.71\% |  | 0.87\% |  | 47.79\% |  | 48.25\% |  | 48.25\% |  | 48.25\% |
| Total Consumer Loans | \$ | 30,098 | \$ | 34,561 | \$ | 36,309 | \$ | 35,615 | \$ | 40,298 | \$ | 42,377 | \$ | 43,659 | \$ | 44,969 |
| Total Interest on Consumer Loans | \$ | 1,101 | \$ | 1,290 | \$ | 1,573 | \$ | 1,459 | \$ | 1,305 | \$ | 2,074 | \$ | 2,119 | \$ | 2,166 |
| Total Loans | \$ | 100,351 | \$ | 111,138 | \$ | 118,121 | \$ | 136,826 | \$ | 149,020 | \$ | 154,360 | \$ | 159,002 | \$ | 163,772 |
| Total Interest on Loans | \$ | 3,559 | \$ | 4,268 | \$ | 6,249 | \$ | 5,313 | \$ | 5,393 | \$ | 6,285 | \$ | 6,456 | \$ | 6,633 |
| Yield |  | 3.55\% |  | 3.84\% |  | 5.29\% |  | 3.88\% |  | 3.62\% |  | 4.07\% |  | 4.06\% |  | 4.05\% |
| EARNING ASSETS Interest Income (2019-Pres) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans held-for-sale | \$ | 1,689 | \$ | 1,270 | \$ | 1,007 | \$ | 1,007 | \$ | 1,995 | \$ | 2,055 | \$ | 2,117 | \$ | 2,180 |
| Interest on Loans held-for-sale | \$ | 50 | \$ | 56 | \$ | 61 | \$ | 76 | \$ | 71 | \$ | 74 | \$ | 76 | \$ | 78 |
| Yield |  | 2.96\% |  | 4.41\% |  | 6.06\% |  | 7.52\% |  | 3.56\% |  | 3.59\% |  | 3.59\% |  | 3.59\% |
| Securities available for sale | \$ | 35,686 | \$ | 46,420 | \$ | 44,056 | \$ | 44,548 | \$ | 41,900 | \$ | 43,157 | \$ | 44,451 | \$ | 45,785 |
| Interest on securities held for sale | \$ | 546 | \$ | 752 | \$ | 793 | \$ | 883 | \$ | 568 | \$ | 591 | \$ | 609 | \$ | 353 |
| Yield |  | 1.53\% |  | 1.62\% |  | 1.80\% |  | 1.98\% |  | 1.36\% |  | 1.37\% |  | 1.37\% |  | 0.77\% |
| Held-to-maturity Securities | \$ | 7,034 | \$ | 7,690 | \$ | 9,017 | \$ | 9,066 | \$ | 11,306 | \$ | 11,645 | \$ | 11,995 | \$ | 12,355 |
| Interest on held-to-maturity securities | \$ | 185 | \$ | 213 | \$ | 312 | \$ | 318 | \$ | 295 | \$ | 307 | \$ | 316 | \$ | 313 |
| Yield |  | 2.63\% |  | 2.77\% |  | 3.46\% |  | 3.50\% |  | 2.61\% |  | 2.63\% |  | 2.63\% |  | 2.54\% |
| Trading account assets | \$ | 809 | \$ | 859 | \$ | 1,134 | \$ | 1,134 | \$ | 1,064 | \$ | 1,096 | \$ | 1,129 | \$ | 1,163 |
| Interest on trading account assets | \$ | 19 | \$ | 31 | \$ | 55 | \$ | 66 | \$ | 36 | \$ | 37 | \$ | 38 | \$ | 20 |
| Yield |  | 2.35\% |  | 3.61\% |  | 4.85\% |  | 5.80\% |  | 3.34\% |  | 3.37\% |  | 3.37\% |  | 1.68\% |
| S-T Investments | \$ | 17,500 | \$ | 4,254 | \$ | 7,353 | \$ | 8,870 | \$ | 8,912 | \$ | 9,179 | \$ | 9,455 | \$ | 9,738 |
| Interest on S-T Investments | \$ | 28 | \$ | 97 | \$ | 414 | \$ | 414 | \$ | 124 | \$ | 129 | \$ | 133 | \$ | 98 |
| Yield |  | 0.16\% |  | 2.28\% |  | 5.63\% |  | 4.67\% |  | 1.39\% |  | 1.41\% |  | 1.41\% |  | 1.01\% |
| Other Investments | \$ | 614 | \$ | 973 | \$ | 1,383 | \$ | 1,175 | \$ | 1,330 | \$ | 1,370 | \$ | 1,411 | \$ | 1,453 |
| Interest on other investments | \$ | 7 | \$ | 22 | \$ | 73 | \$ | 126 | \$ | 25 | \$ | 26 | \$ | 27 | \$ | 27 |
| Yield |  | 1.14\% |  | 2.26\% |  | 5.28\% |  | 10.70\% |  | 1.87\% |  | 1.89\% |  | 1.89\% |  | 1.89\% |
| Total Earning Assets | \$ | 63,332 | \$ | 61,466 | \$ | 63,950 | \$ | 63,950 | \$ | 66,508 | \$ | 68,503 | \$ | 70,558 | \$ | 72,675 |
| Total Interest on Earning Assets | \$ | 835 | \$ | 1,171 | \$ | 1,708 | \$ | 2,060 | \$ | 1,114 | \$ | 1,159 | \$ | 1,193 | \$ | 889 |
| Total Interest Income | \$ | 4,394 | \$ | 5,439 | \$ | 7,957 | \$ | 6,763 | \$ | 7,102 | \$ | 7,386 | \$ | 7,607 | \$ | 7,835 |
| Provisions | \$ | 27 | \$ | 27 | \$ | 30 | \$ | 34 | \$ | 27 | \$ | 28 | \$ | 30 | \$ | 30 |
| Total Interest Income after Provisions | \$ | 4,367 | \$ | 5,412 | \$ | 7,927 | \$ | 6,729 | \$ | 7,075 | \$ | 7,358 | \$ | 7,577 | \$ | 7,805 |
| NON INTEREST INCOME (2019-Pres) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trust \& investment services income | \$ | 530 | \$ | 526 | \$ | 516 | \$ | 575 | \$ | 598 | \$ | 616 | \$ | 635 | \$ | 654 |
| Investment banking \& debt placement fees | \$ | 937 | \$ | 638 | \$ | 542 | \$ | 572 | \$ | 595 | \$ | 613 | \$ | 632 | \$ | 651 |
| Service charges on deposit accounts | \$ | 337 | \$ | 350 | \$ | 270 | \$ | 276 | \$ | 287 | \$ | 295 | \$ | 304 | \$ | 313 |
| Operating lease income \& other leasing gains | \$ | 148 | \$ | 103 | \$ | 92 | \$ | 96 | \$ | 99 | \$ | 102 | \$ | 105 | \$ | 109 |
| Corporate services income | \$ | 288 | \$ | 372 | \$ | 302 | \$ | 315 | \$ | 327 | \$ | 337 | \$ | 347 | \$ | 358 |
| Cards \& payments income | \$ | 415 | \$ | 341 | \$ | 340 | \$ | 340 | \$ | 354 | \$ | 364 | \$ | 375 | \$ | 386 |
| Corporate-owned life insurance income | \$ | 128 | \$ | 132 | \$ | 132 | \$ | 139 | \$ | 144 | \$ | 148 | \$ | 153 | \$ | 158 |
| Consumer mortgage income | \$ | 131 | \$ | 58 | \$ | 51 | \$ | 48 | \$ | 50 | \$ | 52 | \$ | 53 | \$ | 55 |
| Commercial mortgage servicing fees | \$ | 160 | \$ | 167 | \$ | 190 | \$ | 190 | \$ | 198 | \$ | 204 | \$ | 210 | \$ | 216 |
| Other income | \$ | 120 | \$ | 31 | \$ | 35 | \$ | 36 | \$ | 37 | \$ | 39 | \$ | 40 | \$ | 41 |
| Total noninterest income | \$ | 3,194 | \$ | 2,718 | \$ | 2,470 | \$ | 2,587 | \$ | 2,690 | \$ | 2,771 | \$ | 2,854 | \$ | 2,940 |
| Total revenue | \$ | 7,561 | \$ | 8,130 | \$ | 10,397 | \$ | 9,316 | \$ | 9,765 | \$ | 10,129 | \$ | 10,431 | \$ | 10,745 |

KeyCorp
Income Statement

| Fiscal Years Ending Dec. 31 | 2021 |  |  | 2022 |  | 2023 | 2024E |  |  | 2025E | 2026E |  |  | 2027E | 2028E (CV) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST INCOME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest income on loans | \$ | 3,559 | \$ | 4,268 | \$ | 6,249 | \$ | 5,313 | \$ | 5,393 | \$ | 6,285 | \$ | 6,456 | \$ | 6,633 |
| Interest income on loans held for sale | \$ | 50 | \$ | 56 | \$ | 61 | \$ | 76 | \$ | 71 | \$ | 74 | \$ | 76 | \$ | 78 |
| Interest income on securities available for sale | \$ | 546 | \$ | 752 | \$ | 793 | \$ | 883 | \$ | 568 | \$ | 591 | \$ | 609 | \$ | 353 |
| Interest income on held-to-maturity securities | \$ | 185 | \$ | 213 | \$ | 312 | \$ | 318 | \$ | 295 | \$ | 307 | \$ | 316 | \$ | 313 |
| Interest income on trading account assets | \$ | 19 | \$ | 31 | \$ | 55 | \$ | 66 | \$ | 36 | \$ | 37 | \$ | 38 | \$ | 20 |
| Interest income on short-term investments | \$ | 28 | \$ | 97 | \$ | 414 | \$ | 414 | \$ | 124 | \$ | 129 | \$ | 133 | \$ | 98 |
| Interest income on other investments | \$ | 7 | \$ | 22 | \$ | 73 | \$ | 126 | \$ | 25 | \$ | 26 | \$ | 27 | \$ | 27 |
| Total interest income | \$ | 4,394 | \$ | 5,439 | \$ | 7,957 | \$ | 6,729 | \$ | 7,075 | \$ | 7,358 | \$ | 7,577 | \$ | 7,805 |
| INTEREST EXPENSE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest expense on deposits | \$ | 67 | \$ | 279 | \$ | 2,322 | \$ | 1,346 | \$ | 1,371 | \$ | 1,412 | \$ | 1,455 | \$ | 1,499 |
| Interest expense on federal funds purchased \& securities sold under repur | chas | eements | \$ | 41 | \$ | 79 | \$ | 45 | \$ | 46 | \$ | 47 | \$ | 48 | \$ | 50 |
| Interest expense on bank notes \& other short-term borrowings | \$ | 8 | \$ | 90 | \$ | 308 | \$ | 139 | \$ | 137 | \$ | 141 | \$ | 145 | \$ | 150 |
| Interest expense on long-term debt | \$ | 221 | \$ | 475 | \$ | 1,305 | \$ | 1,401 | \$ | 1,493 | \$ | 1,538 | \$ | 1,584 | \$ | 1,632 |
| Total interest expense | \$ | 296 | \$ | 885 | \$ | 4,014 | \$ | 2,930 | \$ | 3,074 | \$ | 3,228 | \$ | 3,403 | \$ | 3,536 |
| - Provisions | \$ | (418) | \$ | 502 | \$ | 489 |  |  | \$ | 27 | \$ | 28 | \$ | 30 | \$ | 30 |
| Net Interest Income | \$ | 4,516 | \$ | 4,052 | \$ | 3,454 | \$ | 3,799 | \$ | 3,974 | \$ | 4,102 | \$ | 4,144 | \$ | 4,240 |
| NONINTEREST INCOME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trust \& investment services income | \$ | 530 | \$ | 526 | \$ | 516 | \$ | 575 | \$ | 598 | \$ | 616 | \$ | 635 | \$ | 654 |
| Investment banking \& debt placement fees | \$ | 937 | \$ | 638 | \$ | 542 | \$ | 572 | \$ | 595 | \$ | 613 | \$ | 632 | \$ | 651 |
| Service charges on deposit accounts | \$ | 337 | \$ | 350 | \$ | 270 | \$ | 276 | \$ | 287 | \$ | 295 | \$ | 304 | \$ | 313 |
| Operating lease income \& other leasing gains | \$ | 148 | \$ | 103 | \$ | 92 | \$ | 96 | \$ | 99 | \$ | 102 | \$ | 105 | \$ | 109 |
| Corporate services income | \$ | 288 | \$ | 372 | \$ | 302 | \$ | 315 | \$ | 327 | \$ | 337 | \$ | 347 | \$ | 358 |
| Cards \& payments income | \$ | 415 | \$ | 341 | \$ | 340 | \$ | 340 | \$ | 354 | \$ | 364 | \$ | 375 | \$ | 386 |
| Corporate-owned life insurance income | \$ | 128 | \$ | 132 | \$ | 132 | \$ | 139 | \$ | 144 | \$ | 148 | \$ | 153 | \$ | 158 |
| Consumer mortgage income | \$ | 131 | \$ | 58 | \$ | 51 | \$ | 48 | \$ | 50 | \$ | 52 | \$ | 53 | \$ | 55 |
| Commercial mortgage servicing fees | \$ | 160 | \$ | 167 | \$ | 190 | \$ | 190 | \$ | 198 | \$ | 204 | \$ | 210 | \$ | 216 |
| Other income | \$ | 120 | \$ | 31 | \$ | 35 | \$ | 36 | \$ | 37 | \$ | 39 | \$ | 40 | \$ | 41 |
| Total noninterest income | \$ | 3,194 | \$ | 2,718 | \$ | 2,470 | \$ | 2,587 | \$ | 2,690 | \$ | 2,771 | \$ | 2,854 | \$ | 2,940 |
| Total Net Revenue | \$ | 7,710 | \$ | 6,770 | \$ | 5,924 | \$ | 6,386 | \$ | 6,664 | \$ | 6,873 | \$ | 6,998 | \$ | 7,179 |
| NONINTEREST EXPENSE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel expense | \$ | 2,561 | \$ | 2,566 | \$ | 2,660 | \$ | 2,820 | \$ | 2,961 | \$ | 3,109 | \$ | 3,264 | \$ | 3,427 |
| Net occupancy expense | \$ | 300 | \$ | 295 | \$ | 267 | \$ | 280 | \$ | 294 | \$ | 309 | \$ | 325 | \$ | 341 |
| Computer processing expense | \$ | 284 | \$ | 314 | \$ | 368 | \$ | 386 | \$ | 402 | \$ | 418 | \$ | 435 | \$ | 452 |
| Business services \& professional fees | \$ | 227 | \$ | 212 | \$ | 168 | \$ | 180 | \$ | 187 | \$ | 194 | \$ | 202 | \$ | 210 |
| Equipment expense | \$ | 100 | \$ | 92 | \$ | 88 | \$ | 92 | \$ | 96 | \$ | 100 | \$ | 104 | \$ | 108 |
| Operating lease expense | \$ | 126 | \$ | 101 | \$ | 77 | \$ | 81 | \$ | 84 | \$ | 87 | \$ | 91 | \$ | 95 |
| Marketing expense | \$ | 126 | \$ | 123 | \$ | 109 | \$ | 113 | \$ | 118 | \$ | 123 | \$ | 128 | \$ | 133 |
| Other expense | \$ | 705 | \$ | 707 | \$ | 997 | \$ | 1,037 | \$ | 1,078 | \$ | 1,111 | \$ | 1,144 | \$ | 1,178 |
| Total noninterest expense | \$ | 4,429 | \$ | 4,410 | \$ | 4,734 | \$ | 4,990 | \$ | 5,220 | \$ | 5,451 | \$ | 5,692 | \$ | 5,944 |
| NET INCOME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Income (loss) from continuing operations before income taxes | \$ | 3,254 | \$ | 2,333 | \$ | 1,160 | \$ | 1,396 | \$ | 1,444 | \$ | 1,422 | \$ | 1,306 | \$ | 1,235 |
| Current federal income taxes payable (benefit) | \$ | 423 | \$ | 368 | \$ | 257 | \$ | 293 | \$ | 303 | \$ | 299 | \$ | 274 | \$ | 259 |
| Current state income taxes payable (benefit) | \$ | 73 | \$ | 80 | \$ | 48 | \$ | 22 | \$ | 23 | \$ | 23 | \$ | 21 | \$ | 20 |
| Total current income taxes payable (benefit) | \$ | 496 | \$ | 448 | \$ | 305 | \$ | 316 | \$ | 326 | \$ | 321 | \$ | 295 | \$ | 279 |
| Deferred federal income taxes payable (benefit) | \$ | 119 | \$ | (14) | \$ | (84) | \$ | (20) | \$ | (31) | \$ | (6) | \$ | (31) | \$ | (34) |
| Deferred state income taxes payable (benefit) | \$ | 27 | \$ | (12) | \$ | (25) | \$ | (5) | \$ | (10) | \$ | (5) | \$ | (12) | \$ | (11) |
| Total deferred income taxes payable (benefit) | \$ | 146 | \$ | (26) | \$ | (109) | \$ | (26) | \$ | (41) | \$ | (11) | \$ | (43) | \$ | (46) |
| Income taxes expense (benefit) | \$ | 642 | \$ | 422 | \$ | 196 | \$ | 290 | \$ | 285 | \$ | 310 | \$ | 253 | \$ | 233 |
| Income (loss) from continuing operations | \$ | 2,612 | \$ | 1,911 | \$ | 964 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Income (loss) from discontinued operations, net | \$ | 13 | \$ | 6 | \$ | 3 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Net income (loss) | \$ | 2,625 | \$ | 1,917 | \$ | 967 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Less: net income (loss) attributable to noncontrolling interests |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net income (loss) attributable to KeyCorp | \$ | 2,625 | \$ | 1,917 | \$ | 967 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Less: dividends on preferred stock | \$ | 106 | \$ | 118 | \$ | 143 | \$ | 142 | \$ | 145 | \$ | 142 | \$ | 139 | \$ | 136 |
| Net income (loss) attributable to KeyCorp common shareholders | \$ | 2,519 | \$ | 1,799 | \$ | 824 | \$ | 964 | \$ | 1,014 | \$ | 970 | \$ | 915 | \$ | 866 |
| Total Shares Outstanding |  | 928.85 |  | 933.32 |  | 936.56 |  | 938 |  | 941 |  | 950 |  | 963 |  | 968 |
| Earnings per share - basic |  | 2.63 |  | 1.93 |  | 0.88 |  | 1.03 |  | 1.08 |  | 1.03 |  | 0.96 |  | 0.90 |
| Dividends per share - basic |  | 0.75 |  | 0.79 |  | 0.82 |  | 1.22 |  | 1.82 |  | 2.72 |  | 4.06 |  | 6.05 |
| Weighted Average Shares |  | 952.31 |  | 931.085 |  | 934.94 |  | 937.11 |  | 939.54 |  | 945.93 |  | 956.74 |  | 965.57 |

## KeyCorp

Balance Sheet (Millions)

| Fiscal Years Ending Dec. 31 | 2021 | 2022 | 2023 | 2024E | 2025E | 2026E | 2027 E | 2028E (CV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |  |  |  |
| Cash \& due from banks | 913 | 887 | 941 | $(1,210)$ | $(4,290)$ | $(8,014)$ | $(12,463)$ | $(16,485)$ |
| Short-term investments | 11,010 | 2,432 | 10,817 | 11,682 | 12,617 | 13,626 | 14,716 | 15,379 |
| Trading account assets | 701 | 829 | 1,142 | 1,233 | 1,332 | 1,439 | 1,554 | 1,624 |
| Securities available for sale | 45,364 | 39,117 | 37,185 | 39,788 | 42,573 | 45,553 | 48,742 | 50,935 |
| Held-to-maturity securities | 7,539 | 8,710 | 8,575 | 8,831 | 9,095 | 9,366 | 9,646 | 9,887 |
| Other investments | 639 | 1,308 | 1,244 | 1,312 | 1,385 | 1,461 | 1,541 | 1,610 |
| Loans | 101,854 | 119,394 | 112,606 | 117,110 | 120,624 | 122,433 | 124,269 | 125,512 |
| Allowance for loan \& lease losses | 1,061 | 1,337 | 1,508 | 1,551 | 1,596 | 1,642 | 1,689 | 1,732 |
| Net loans | 100,793 | 118,057 | 111,098 | 115,559 | 119,027 | 120,791 | 122,580 | 123,781 |
| Loans held for sale | 2,729 | 963 | 483 | 520 | 560 | 602 | 648 | 677 |
| Premises \& equipment | 681 | 636 | 661 | 638 | 621 | 607 | 598 | 591 |
| Goodwill | 2,693 | 2,752 | 2,752 | 2,752 | 2,752 | 2,752 | 2,752 | 2,752 |
| Other intangible assets | 130 | 94 | 55 | 27 | 8 | 1 | - | - |
| Corporate owned life insurance | 4,327 | 4,369 | 4,383 | 4,434 | 4,485 | 4,537 | 4,589 | 4,635 |
| Accrued income \& other assets | 8,265 | 9,223 | 8,601 | 9,621 | 10,761 | 12,037 | 13,464 | 14,070 |
| Discontinued assets | 562 | 436 | 344 | 344 | 344 | 344 | 344 | 344 |
| Total assets | 186,346 | 189,813 | 188,281 | 195,531 | 201,270 | 205,102 | 208,711 | 209,801 |
| Liabilities |  |  |  |  |  |  |  |  |
| Total interest-bearing deposits | 100,568 | 101,761 | 114,859 | 117,757 | 120,678 | 123,592 | 127,300 | 131,119 |
| Noninterest-bearing deposits | 52,004 | 40,834 | 30,728 | 35,163 | 36,889 | 38,730 | 40,839 | 42,430 |
| Total deposits | 152,572 | 142,595 | 145,587 | 152,919 | 157,568 | 162,322 | 168,139 | 173,549 |
| Federal funds purchased \& securities sold under repurchase agreements | 173 | 4,077 | 38 | 38 | 38 | 38 | 38 | 38 |
| Bank notes \& other short-term borrowings | 588 | 5,386 | 3,053 | 2,774 | 4,114 | 4,237 | 4,365 | 4,496 |
| Accrued expenses \& other liabilities | 3,548 | 4,994 | 5,412 | 5,547 | 5,686 | 5,828 | 5,974 | 6,123 |
| Long-term debt | 12,042 | 19,307 | 19,554 | 20,174 | 20,814 | 21,474 | 22,155 | 22,858 |
| Total liabilities | 168,923 | 176,359 | 173,644 | 181,453 | 188,220 | 193,900 | 200,670 | 207,064 |
| Shareholders Equity |  |  |  |  |  |  |  |  |
| Preferred stock | 1,900 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 |
| Common shares/Capital Surplus | 7,535 | 7,543 | 7,538 | 7,558 | 7,627 | 7,792 | 8,022 | 8,114 |
| Retained earnings | 14,553 | 15,616 | 15,672 | 15,632 | 15,073 | 13,599 | 10,745 | 5,887 |
| Treasury stock, at cost | 5,979 | 5,910 | 5,844 | 6,382 | 6,921 | 7,459 | 7,998 | 8,536 |
| Accumulated other comprehensive income (loss) | (586) | $(6,295)$ | $(5,229)$ | $(5,229)$ | $(5,229)$ | $(5,229)$ | $(5,229)$ | $(5,229)$ |
| Total equity | 17,423 | 13,454 | 14,637 | 14,078 | 13,050 | 11,203 | 8,040 | 2,737 |
| Total Liabilities and Equity | 186,346 | 189,813 | 188,281 | 195,531 | 201,270 | 205,102 | 208,711 | 209,801 |

KeyCorp
Historical Cash Flow Statement

| Fiscal Years Ending Dec. 31 |  | 2016 | 2017 |  | 2018 |  | 2019 |  | 2020 |  | 2021 |  | 2022 | 2023 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating Activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Income/Loss before Preferred Dividends | \$ | 790.00 | \$ 1,298.00 | \$ | 1,866.00 |  | 1,717.00 | \$ | 1,343.00 | \$ | 2,625.00 | \$ | 1,917.00 | 967 |
| Adjustments to reconcile net income to net cash provided by operating activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provision for Loan Losses |  | 266 | 229 |  | 246 |  | 445 |  | 1,021 |  | (418) |  | 502 | 489 |
| Other Provisions |  | 13 | (3) |  | (10) |  | 0 |  | 0 |  | 0 |  | 0 | 0 |
| Depreciation and Amortization |  | 314 | 407 |  | 382 |  | 241 |  | 111 |  | 32 |  | 137 | 134 |
| Deferred Income Tax |  | 11 | 303 |  | 98 |  | 53 |  | (191) |  | 146 |  | (27) | (108) |
| Cash Surrender Value of Bank Owned Life Insurance |  | (111) | (119) |  | (117) |  | (121) |  | (119) |  | (113) |  | (113) | (110) |
| (Gains)/Lossses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Realized |  | (96) | (162) |  | (133) |  | (227) |  | (253) |  | (283) |  | (160) |  |
| Stock-based Compensation |  | 99 | 100 |  | 99 |  | 96 |  | 101 |  | 104 |  | 120 | 121 |
| Other Non-cash Adjustments |  | 76 | 208 |  | 86 |  | 57 |  | 28 |  | 24 |  | 27 | 20 |
| Net Change in |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans Held for Sale |  | 211 | 117 |  | 71 |  | 276 |  | 220 |  | (383) |  | 1,812 |  |
| Trading Account Assets |  | (79) | 31 |  | (13) |  | (191) |  | 305 |  | 34 |  | (128) | (313) |
| Other Current and Noncurrent Assets/Liabilities |  | 195 | (594) |  | 14 |  | 560 |  | (893) |  | (615) |  | 382 | 1393 |
| Net Cash Provided by/Used in Operating Activities |  | 1,689 | 1,815 |  | 2,506 |  | 2,906 |  | 1,673 |  | 1,153 |  | 4,469 | 2,903 |
| Investing Activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Change in |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans |  | $(3,440)$ | (762) |  | $(3,496)$ |  | $(5,791)$ |  | $(7,147)$ |  | $(3,939)$ |  | $(17,492)$ |  |
| Investments |  | $(2,368)$ | 345 |  | $(1,007)$ |  | (247) |  | $(2,655)$ |  | $(16,294)$ |  | $(1,942)$ |  |
| Acquisitions and Dispositions, Net of Cash |  | (481) | (144) |  | 0 |  | (185) |  | 0 |  | (29) |  | (58) |  |
| Properties for Resale |  | 16 | 51 |  | 31 |  | 23 |  | 0 |  | 0 |  |  |  |
| PP\&E \& Intangible Assets |  | (145) | (112) |  | (97) |  | (67) |  | (63) |  | (62) |  | (92) |  |
| Other Long-term Assets |  | 29 | 55 |  | 78 |  | 59 |  | 66 |  | 72 |  | 72 |  |
| Short-term Investments |  | (68) | $(1,672)$ |  | 1,885 |  | 1,290 |  | $(14,922)$ |  | 5,184 |  | 8,578 | $(8,385)$ |
| Other Investing Inflows \& Outflows |  | 0 | 0 |  | 124 |  | 0 |  | 0 |  | 0 |  | 0 | 96 |
| Net Cash Provided by/Used in Investing Activities |  | $(6,457)$ | $(2,239)$ |  | $(2,482)$ |  | $(4,918)$ |  | $(24,721)$ |  | $(15,068)$ |  | $(10,934)$ | 1417 |
| Financing Activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Change in |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits |  | 4,047 | 1,148 |  | 2,074 |  | 4,561 |  | 23,412 |  | 17,290 |  | $(9,977)$ | 2,992 |
| Short-term Debt |  | $(1,294)$ | $(1,299)$ |  | (148) |  | 229 |  | (113) |  | (218) |  | 8,702 | $(6,372)$ |
| Long-term Debt |  | 1,519 | 2,104 |  | (574) |  | $(1,505)$ |  | 1,099 |  | $(1,363)$ |  | 8,016 |  |
| Proceeds from Issuance of Common Stock |  | 32 | 25 |  | 20 |  | 18 |  | 8 |  | 27 |  | 6 | 1 |
| Proceeds from Issuance of Preferred Stock |  | 1,009 | 0 |  | 412 |  | 435 |  | 0 |  | 0 |  | 590 | 0 |
| Repurchase of Common Stock |  | (140) | (730) |  | $(1,145)$ |  | (868) |  | (170) |  | $(1,176)$ |  | (44) | (34) |
| Redemption of Preferred Stock |  | 0 | (350) |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 | 0 |
| Dividends Paid |  | (335) | (480) |  | (656) |  | (804) |  | (829) |  | (823) |  | (854) | (911) |
| Net Cash Provided by/Used in Financing Activities |  | 4,838 | 418 |  | (17) |  | 2,066 |  | 23,407 |  | 13,737 |  | 6,439 | $(4,266)$ |
| Net Increase (Decrease) in Cash \& Cash Equivalents |  | 70 | (6) |  | 7 |  | 54 |  | 359 |  | (178) |  | (26) |  |

## KeyCorp

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31

## 2024E

## 2025E

2026E
$2027 E$
2028E
Cash Flow from Operating Activities
Net Income

| $\$$ | 1,106 | $\$$ | 1,159 | $\$$ | 1,112 | $\$$ | 1,054 | $\$$ | 1,002 |
| :--- | ---: | :--- | ---: | :--- | ---: | :--- | ---: | :--- | ---: |
| $\$$ | 28 | $\$$ | 19 | $\$$ | 7 | $\$$ | 1 | $\$$ | - |
| $\$$ | $(91)$ | $\$$ | $(99)$ | $\$$ | $(107)$ | $\$$ | $(115)$ | $\$$ | $(70)$ |
| $\$$ | $(51)$ | $\$$ | $(51)$ | $\$$ | $(52)$ | $\$$ | $(53)$ | $\$$ | $(46)$ |
| $\$$ | 43 | $\$$ | 45 | $\$$ | 46 | $\$$ | 47 | $\$$ | 42 |
| $\$$ | $(37)$ | $\$$ | $(40)$ | $\$$ | $(43)$ | $\$$ | $(46)$ | $\$$ | $(29)$ |
| $\$$ | $(1,020)$ | $\$$ | $(1,140)$ | $\$$ | $(1,276)$ | $\$$ | $(1,427)$ | $\$$ | $(606)$ |
| $\$$ | 135 | $\$$ | 139 | $\$$ | 142 | $\$$ | 146 | $\$$ | 149 |
| $\$$ | 115 | $\$$ | 31 | $\$$ | $(170)$ | $\$$ | $(393)$ | $\$$ | 443 |

Amortization
Trading account assets
Corporate owned life insurance
(51) \$ (51) \$ (52) \$ (53) \$
(46)

Allowance for loans
(40) \$
(43) \$
(46) \$
(29)

Loans held for sale
Other assets

Net Cash Provided from Operating Activities
$\$$

Cash Flow from Investing Activities

| Short-term investments | \$ | (865) | \$ | (935) | \$ | $(1,009)$ | \$ | $(1,090)$ | \$ | (662) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Securities available for sale | \$ | $(2,603)$ | \$ | $(2,785)$ | \$ | $(2,980)$ | \$ | $(3,189)$ | \$ | $(2,193)$ |
| Held-to-maturity securities | \$ | (256) | \$ | (264) | \$ | (272) | \$ | (280) | \$ | (241) |
| Other investments | \$ | (68) | \$ | (72) | \$ | (76) | \$ | (80) | \$ | (69) |
| Loans | \$ | $(4,504)$ | \$ | $(3,513)$ | \$ | $(1,809)$ | \$ | $(1,836)$ | \$ | $(1,243)$ |
| Premises \& equipment | \$ | 23 | \$ | 18 | \$ | 13 | \$ | 10 | \$ | 6 |
| Net Cash Provided from Investing Activities | \$ | $(8,274)$ | \$ | $(7,551)$ | \$ | $(6,133)$ | \$ | $(6,466)$ | \$ | $(4,402)$ |

## Cash Flow from Financing Activities

| Payment of dividends | $\mathbf{( 1 , 1 4 7 )}$ | $\$$ | $(1,717)$ | $\$$ | $(2,586)$ | $\$$ | $(3,908)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

KeyCorp
Common Size Income Statement

| Fiscal Years Ending Dec. 31 | 2021 | 2022 | 2023 | $2024 E$ | 2025E | 2026 E | $2027 E$ | 2028 E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST INCOME ( \% of Total Assets) |  |  |  |  |  |  |  |  |
| Interest income on loans | 1.91\% | 2.25\% | 3.32\% | 2.72\% | 2.68\% | 3.06\% | 3.09\% | 3.16\% |
| Interest income on loans held for sale | 0.03\% | 0.03\% | 0.03\% | 0.04\% | 0.04\% | 0.04\% | 0.04\% | 0.04\% |
| Interest income on securities available for sale | 0.29\% | 0.40\% | 0.42\% | 0.45\% | 0.28\% | 0.29\% | 0.29\% | 0.17\% |
| Interest income on held-to-maturity securities | 0.10\% | 0.11\% | 0.17\% | 0.16\% | 0.15\% | 0.15\% | 0.15\% | 0.15\% |
| Interest income on trading account assets | 0.01\% | 0.02\% | 0.03\% | 0.03\% | 0.02\% | 0.02\% | 0.02\% | 0.01\% |
| Interest income on short-term investments | 0.02\% | 0.05\% | 0.22\% | 0.21\% | 0.06\% | 0.06\% | 0.06\% | 0.05\% |
| Interest income on other investments | 0.00\% | 0.01\% | 0.04\% | 0.06\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% |
| Total interest income | 2.36\% | 2.87\% | 4.23\% | 3.44\% | 3.51\% | 3.59\% | 3.63\% | 3.72\% |
| INTEREST EXPENSE (\% of Total Assets) |  |  |  |  |  |  |  |  |
| Interest expense on deposits | 0.04\% | 0.15\% | 1.23\% | 0.69\% | 0.68\% | 0.69\% | 0.70\% | 0.71\% |
| Interest expense on federal funds purchased \& securities sold under | 0.00\% | 0.02\% | 0.04\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% |
| Interest expense on bank notes \& other short-term borrowings | 0.00\% | 0.05\% | 0.16\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% |
| Interest expense on long-term debt | 0.12\% | 0.25\% | 0.69\% | 0.72\% | 0.74\% | 0.75\% | 0.76\% | 0.78\% |
| Total interest expense | 0.16\% | 0.47\% | 2.13\% | 1.50\% | 1.53\% | 1.57\% | 1.63\% | 1.69\% |
| Net Interest Income | 2.42\% | 2.13\% | 1.83\% | 1.94\% | 1.97\% | 2.00\% | 1.99\% | 2.02\% |
| NONINTEREST INCOME (\% of Total Assets) |  |  |  |  |  |  |  |  |
| Trust \& investment services income | 0.28\% | 0.28\% | 0.27\% | 0.29\% | 0.30\% | 0.30\% | 0.30\% | 0.31\% |
| Investment banking \& debt placement fees | 0.50\% | 0.34\% | 0.29\% | 0.29\% | 0.30\% | 0.30\% | 0.30\% | 0.31\% |
| Service charges on deposit accounts | 0.18\% | 0.18\% | 0.14\% | 0.14\% | 0.14\% | 0.14\% | 0.15\% | 0.15\% |
| Operating lease income \& other leasing gains | 0.08\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% |
| Corporate services income | 0.15\% | 0.20\% | 0.16\% | 0.16\% | 0.16\% | 0.16\% | 0.17\% | 0.17\% |
| Cards \& payments income | 0.22\% | 0.18\% | 0.18\% | 0.17\% | 0.18\% | 0.18\% | 0.18\% | 0.18\% |
| Corporate-owned life insurance income | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.08\% |
| Consumer mortgage income | 0.07\% | 0.03\% | 0.03\% | 0.02\% | 0.03\% | 0.03\% | 0.03\% | 0.03\% |
| Commercial mortgage servicing fees | 0.09\% | 0.09\% | 0.10\% | 0.10\% | 0.10\% | 0.10\% | 0.10\% | 0.10\% |
| Other income | 0.06\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% |
| Total noninterest income | 1.71\% | 1.43\% | 1.31\% | 1.32\% | 1.34\% | 1.35\% | 1.37\% | 1.40\% |
| NONINTEREST EXPENSE (\% of Total Assets) |  |  |  |  |  |  |  |  |
| Personnel expense | 1.37\% | 1.35\% | 1.41\% | 1.44\% | 1.47\% | 1.52\% | 1.56\% | 1.63\% |
| Net occupancy expense | 0.16\% | 0.16\% | 0.14\% | 0.14\% | 0.15\% | 0.15\% | 0.16\% | 0.16\% |
| Computer processing expense | 0.15\% | 0.17\% | 0.20\% | 0.20\% | 0.20\% | 0.20\% | 0.21\% | 0.22\% |
| Business services \& professional fees | 0.12\% | 0.11\% | 0.09\% | 0.09\% | 0.09\% | 0.09\% | 0.10\% | 0.10\% |
| Equipment expense | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% | 0.05\% |
| Operating lease expense | 0.07\% | 0.05\% | 0.04\% | 0.04\% | 0.04\% | 0.04\% | 0.04\% | 0.05\% |
| Marketing expense | 0.07\% | 0.06\% | 0.06\% | 0.06\% | 0.06\% | 0.06\% | 0.06\% | 0.06\% |
| Other expense | 0.38\% | 0.37\% | 0.53\% | 0.53\% | 0.54\% | 0.54\% | 0.55\% | 0.56\% |
| Total noninterest expense | 2.38\% | 2.32\% | 2.51\% | 2.55\% | 2.59\% | 2.66\% | 2.73\% | 2.83\% |
| NET INCOME (\% of Total Assets) |  |  |  |  |  |  |  |  |
| Income (loss) from continuing operations before income taxes | 1.75\% | 1.23\% | 0.62\% | 0.71\% | 0.72\% | 0.69\% | 0.63\% | 0.59\% |
| Current federal income taxes payable (benefit) | 0.23\% | 0.19\% | 0.14\% | 0.15\% | 0.15\% | 0.15\% | 0.13\% | 0.12\% |
| Current state income taxes payable (benefit) | 0.04\% | 0.04\% | 0.03\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% |
| Total current income taxes payable (benefit) | 0.27\% | 0.24\% | 0.16\% | 0.16\% | 0.16\% | 0.16\% | 0.14\% | 0.13\% |
| Deferred federal income taxes payable (benefit) | 0.06\% | -0.01\% | -0.04\% | -0.01\% | -0.02\% | 0.00\% | -0.01\% | -0.02\% |
| Deferred state income taxes payable (benefit) | 0.01\% | -0.01\% | -0.01\% | 0.00\% | -0.01\% | 0.00\% | -0.01\% | -0.01\% |
| Total deferred income taxes payable (benefit) | 0.08\% | -0.01\% | -0.06\% | -0.01\% | -0.02\% | -0.01\% | -0.02\% | -0.02\% |
| Income taxes expense (benefit) | 0.34\% | 0.22\% | 0.10\% | 0.15\% | 0.14\% | 0.15\% | 0.12\% | 0.11\% |
| Income (loss) from continuing operations | 1.40\% | 1.01\% | 0.51\% | 0.57\% | 0.58\% | 0.54\% | 0.50\% | 0.48\% |
| Income (loss) from discontinued operations, net | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Net income (loss) | 1.41\% | 1.01\% | 0.51\% | 0.57\% | 0.58\% | 0.54\% | 0.50\% | 0.48\% |
| Less: net income (loss) attributable to noncontrolling interests | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Net income (loss) attributable to KeyCorp | 1.41\% | 1.01\% | 0.51\% | 0.57\% | 0.58\% | 0.54\% | 0.50\% | 0.48\% |
| Less: dividends on preferred stock | 0.06\% | 0.06\% | 0.08\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.06\% |
| Net income (loss) attributable to KeyCorp common shareholde | 1.35\% | 0.95\% | 0.44\% | 0.49\% | 0.50\% | 0.47\% | 0.44\% | 0.41\% |

## KeyCorp

Common Size Balance Sheet

| Fiscal Years Ending Dec. 31 | 2021 | 2022 | 2023 | 2024E | 2025E | 2026E | $2027 E$ | 2028E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |  |  |  |
| Cash \& due from banks | 0.49\% | 0.47\% | 0.50\% | -0.62\% | -2.13\% | -3.91\% | -5.97\% | -7.86\% |
| Short-term investments | 5.91\% | 1.28\% | 5.75\% | 5.97\% | 6.27\% | 6.64\% | 7.05\% | 7.33\% |
| Trading account assets | 0.38\% | 0.44\% | 0.61\% | 0.63\% | 0.66\% | 0.70\% | 0.74\% | 0.77\% |
| Securities available for sale | 24.34\% | 20.61\% | 19.75\% | 20.35\% | 21.15\% | 22.21\% | 23.35\% | 24.28\% |
| Held-to-maturity securities | 4.05\% | 4.59\% | 0.00\% | 4.52\% | 4.52\% | 4.57\% | 4.62\% | 4.71\% |
| Other investments | 0.34\% | 0.69\% | 0.66\% | 0.67\% | 0.69\% | 0.71\% | 0.74\% | 0.77\% |
| Loans, net | 54.66\% | 62.90\% | 59.81\% |  | 59.93\% | 59.69\% | 59.54\% | 59.82\% |
| Allowance for loan \& lease losses | 0.57\% | 0.70\% | 0.80\% | 0.79\% | 0.79\% | 0.80\% | 0.81\% | 0.83\% |
| Net loans | 54.09\% | 62.20\% | 59.01\% | 59.10\% | 59.14\% | 58.89\% | 58.73\% | 59.00\% |
| Loans held for sale | 1.46\% | 0.51\% | 0.26\% | 0.27\% | 0.28\% | 0.29\% | 0.31\% | 0.32\% |
| Premises \& equipment | 0.37\% | 0.34\% | 0.35\% | 0.33\% | 0.31\% | 0.30\% | 0.29\% | 0.28\% |
| Goodwill | 1.45\% | 1.45\% | 1.46\% | 1.41\% | 1.37\% | 1.34\% | 1.32\% | 1.31\% |
| Corporate owned life insurance | 2.32\% | 2.30\% | 2.33\% | 2.27\% | 2.23\% | 2.21\% | 2.20\% | 2.21\% |
| Accrued income \& other assets | 4.44\% | 4.86\% | 4.57\% | 4.92\% | 5.35\% | 5.87\% | 6.45\% | 6.71\% |
| Discontinued assets | 0.30\% | 0.23\% | 0.18\% | 0.18\% | 0.17\% | 0.17\% | 0.16\% | 0.16\% |
| Total assets | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
| Liabilities |  |  |  |  |  |  |  |  |
| Total interest-bearing deposits | 53.97\% | 53.61\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Noninterest-bearing deposits | 27.91\% | 21.51\% | 16.32\% | 17.98\% | 18.33\% | 18.88\% | 19.57\% | 20.22\% |
| Total deposits | 81.88\% | 75.12\% | 77.32\% | 78.21\% | 78.29\% | 79.14\% | 80.56\% | 82.72\% |
| Federal funds purchased \& securities sold under repurchase agreements | 0.09\% | 2.15\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% | 0.02\% |
| Bank notes \& other short-term borrowings | 0.32\% | 2.84\% | 1.62\% | 1.42\% | 2.04\% | 2.07\% | 2.09\% | 2.14\% |
| Accrued expenses \& other liabilities | 1.90\% | 2.63\% | 0.00\% | 2.84\% | 2.83\% | 2.84\% | 2.86\% | 2.92\% |
| Long-term debt | 6.46\% | 10.17\% | 10.39\% | 10.32\% | 10.34\% | 10.47\% | 10.62\% | 10.89\% |
| Total liabilities | 90.65\% | 92.91\% | 92.23\% | 92.80\% | 93.52\% | 94.54\% | 96.15\% | 98.70\% |
| Shareholders Equity |  |  |  |  |  |  |  |  |
| Preferred stock | 1.02\% | 1.32\% | 1.33\% | 1.28\% | 1.24\% | 1.22\% | 1.20\% | 1.19\% |
| Common shares/Capital Surplus | 4.04\% | 3.97\% | 4.00\% | 3.87\% | 3.79\% | 3.80\% | 3.84\% | 3.87\% |
| Retained earnings | 7.81\% | 8.23\% | 8.32\% | 7.99\% | 7.49\% | 6.63\% | 5.15\% | 2.81\% |
| Treasury stock, at cost | 3.21\% | 3.11\% | 3.10\% | 3.26\% | 3.44\% | 3.64\% | 3.83\% | 4.07\% |
| Accumulated other comprehensive income (loss) | -0.31\% | -3.32\% | -2.78\% | -2.67\% | -2.60\% | -2.55\% | -2.51\% | -2.49\% |
| Total equity | 9.35\% | 7.09\% | 7.77\% | 7.20\% | 6.48\% | 5.46\% | 3.85\% | 1.30\% |
| Total Liabilities and Equity | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |

KeyCorp
Weighted Average Cost of Capital (WACC) Estimation


KeyCorp
Value Driver Estimation

| Fiscal Years Ending Dec. 31 |  | 2021 |  | 2022 |  | 2023 |  | 2024E |  | 2025E |  | 2026E |  | $2027 E$ |  | 2028E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Income: | \$ | 2,625 | \$ | 1,917 | \$ | 967 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Beg. TSE |  | 17,981 |  | 17,423 |  | 13,454 |  | 14,637 |  | 14,078 |  | 13,050 |  | 11,203 |  | 8,040 |
| Free Cash Flow to Equity (FCFE): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Income | \$ | 2,625 | \$ | 1,917 | \$ | 967 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Change in Total Assets |  | $(16,010)$ |  | $(3,467)$ |  | 1,532 |  | $(7,250)$ |  | $(5,738)$ |  | $(3,833)$ |  | $(3,608)$ |  | $(1,090)$ |
| Change in Total Liabilities |  | 16,568 |  | 7,436 |  | $(2,715)$ |  | 7,809 |  | 6,767 |  | 5,680 |  | 6,770 |  | 6,393 |
| FCFE | \$ | 3,183 | \$ | 5,886 | \$ | (216) | \$ | 1,665 | \$ | 2,187 | \$ | 2,960 | \$ | 4,216 | \$ | 6,306 |
| Return on Equity (ROE): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Income | \$ | 2,625 | \$ | 1,917 | \$ | 967 | \$ | 1,106 | \$ | 1,159 | \$ | 1,112 | \$ | 1,054 | \$ | 1,002 |
| Beginning TSE |  | 17,981 |  | 17,423 |  | 13,454 |  | 14,637 |  | 14,078 |  | 13,050 |  | 11,203 |  | 8,040 |
| ROE |  | 14.60\% |  | 11.00\% |  | 7.19\% |  | 7.56\% |  | 8.23\% |  | 8.52\% |  | 9.41\% |  | 12.46\% |
| Equity Economic Profit (EEP): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning TSE |  | 17,981 |  | 17,423 |  | 13,454 |  | 14,637 |  | 14,078 |  | 13,050 |  | 11,203 |  | 8,040 |
| x (ROE- RE) |  | 4.50\% |  | 0.90\% |  | -2.91\% |  | -2.54\% |  | -1.87\% |  | -1.58\% |  | -0.69\% |  | 2.36\% |
| EEP |  | 809.08 |  | 157.43 |  | (391.73) |  | (371.80) |  | (263.17) |  | (205.84) |  | (77.72) |  | 190.08 |

## KeyCorp

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

| Key Inputs: |  |
| :--- | ---: |
| CV Growth of NOPLAT | $2.50 \%$ |
| CV Year ROE | $12.46 \%$ |
| Cost of Equity | $10.10 \%$ |


| Fiscal Years Ending Dec. 31 |  |  | 2024E | 2025E | 2026 E | 2027 E | 2028E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DCF Model: |  |  |  |  |  |  |  |
| Free Cash Flow (FCF) |  |  | 1665.0 | 2187.0 | 2959.5 | 4215.8 | 6305.6 |
| Continuing Value (CV) |  |  |  |  |  |  | 10541.7 |
| PV of FCF |  |  | 1512.3 | 1804.2 | 2217.5 | 2869.1 | 7174.2 |
| Value of Operating Assets: |  | 15577.4 |  |  |  |  |  |
| Non-Operating Adjustments |  |  |  |  |  |  |  |
| ESOP |  | -13.1 |  |  |  |  |  |
| Value of Equity |  | 15564.3 |  |  |  |  |  |
| Shares Outstanding |  | 933.8 |  |  |  |  |  |
| Intrinsic Value of Last FYE | \$ | 17 |  |  |  |  |  |
| Implied Price as of Today |  | 16.89 |  |  |  |  |  |
| EP Model: |  |  |  |  |  |  |  |
| Economic Profit (EP) |  |  | -371.8 | -263.2 | -205.8 | -77.7 | 190.1 |
| Continuing Value (CV) |  |  |  |  |  |  | 2501.3 |
| PV of EP |  |  | -337.7 | -217.1 | -154.2 | -52.9 | 1702.3 |
| Total PV of EP |  | 940.4 |  |  |  |  |  |
| Invested Capital (last FYE) |  | 14637.0 |  |  |  |  |  |
| Value of Operating Assets: |  | 15577.4 |  |  |  |  |  |
| Non-Operating Adjustments |  |  |  |  |  |  |  |
| ESOP |  | -13.1 |  |  |  |  |  |
| Value of Equity |  | 15564.3 |  |  |  |  |  |
| Shares Outstanding |  | 933.8 |  |  |  |  |  |
| Intrinsic Value of Last FYE | \$ | 16.67 |  |  |  |  |  |
| Implied Price as of Today |  | 16.89 |  |  |  |  |  |

KeyCorp
Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

| Fiscal Years Ending |  |  | 2024E |  | 2025E |  |  | 2026E |  | 2027 E |  | 2028E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EPS |  |  | \$ | 1.03 | \$ | \$ | 1.08 | \$ | 1.03 | \$ | 0.96 | \$ | 0.90 |
| Key Assumptions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CV growth of EPS |  | 3.00\% |  |  |  |  |  |  |  |  |  |  |  |
| CV Year ROE |  | 12.46\% |  |  |  |  |  |  |  |  |  |  |  |
| Cost of Equity |  | 10.10\% |  |  |  |  |  |  |  |  |  |  |  |
| Future Cash Flows |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P/E Multiple (CV Year) |  |  |  |  |  |  |  |  |  |  |  |  | 10.70 |
| EPS (CV Year) |  |  |  |  |  |  |  |  |  |  |  | \$ | 0.90 |
| Future Stock Price |  |  |  |  |  |  |  |  |  |  |  | \$ | 9.59 |
| Dividends Per Share |  |  | \$ | 1.22 | \$ | \$ | 1.82 | \$ | 2.72 | \$ | 4.06 |  |  |
| Discounted Cash Flows |  |  | \$ | 1.111 | \$ | \$ | 1.505 | \$ | 2.039 | \$ | 2.762 | \$ | 6.529 |
| Intrinsic Value as of Last FYE | \$ | 13.94 |  |  |  |  |  |  |  |  |  |  |  |
| Implied Price as of Today |  | 14.13 |  |  |  |  |  |  |  |  |  |  |  |

## KeyCorp

Relative Valuation Models

| Ticker | Company | Price | $\begin{gathered} \text { EPS } \\ 2024 E \end{gathered}$ | $\begin{array}{r} \text { EPS } \\ 20255 \end{array}$ | P/E 24 | P/E 25 |  | Tangible |  | Tangible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Company | Price |  |  |  |  |  |  | P/B | P/B |
| WFC | Wells Fargo | \$57.61 | \$4.78 | \$5.36 | 12.05 | 10.75 | 46.25 | 39.23 | 1.25 | 1.47 |
| USB | US Bancorp | \$44.00 | \$3.91 | \$4.36 | 11.25 | 10.09 | 31.13 | 22.30 | 1.41 | 1.97 |
| PNC | PNC Financial | \$159.97 | \$12.46 | \$14.11 | 12.84 | 11.34 | 112.72 | 85.08 | 1.42 | 1.88 |
| TFC | Truist Financial | \$38.59 | \$3.39 | \$3.82 | 11.38 | 10.10 | 39.31 | 21.83 | 0.98 | 1.77 |
| FITB | Fifth Third Bancorp | \$36.74 | \$3.19 | \$3.51 | 11.52 | 10.47 | 25.04 | 17.64 | 1.47 | 2.08 |
| PNFP | Pinnacle Financial Partn | \$85.65 | \$6.79 | \$8.01 | 12.61 | 10.69 | 75.80 | 51.38 | 1.13 | 1.67 |
| BOKF | BOK Financial | \$91.07 | \$7.38 | \$8.16 | 12.34 | 11.16 | 79.15 | 62.15 | 1.15 | 1.47 |
|  |  |  | Average |  | 12.00 | 10.66 |  |  | 1.26 | 1.76 |
| KEY | KeyCorp | \$14.43 | \$1.03 | \$1.08 | 14.0 | 13.4 | 13.02 | 10.02 | 1.11 | 1.44 |
| Implied Relative Value: |  |  |  |  |  |  |  |  |  |  |
| P/E (E | PS24) |  | \$ 12.35 |  |  |  |  |  |  |  |
| P/E (E | S25) |  | \$ 11.50 |  |  |  |  |  |  |  |
| P/B |  |  | \$ 16.38 |  |  |  |  |  |  |  |
| $\mathrm{P} /$ Tan | gible BV |  | \$ 17.61 |  |  |  |  |  |  |  |

## KeyCorp

Key Management Ratios
Total Loans/Total Assets
Total Loans/Total Deposits
Total Revenue/Total Assets

| $54.66 \%$ | $62.90 \%$ | $59.81 \%$ | $59.89 \%$ | $59.93 \%$ | $59.69 \%$ | $59.54 \%$ | $59.82 \%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $66.76 \%$ | $83.73 \%$ | $77.35 \%$ | $76.58 \%$ | $76.55 \%$ | $75.43 \%$ | $73.91 \%$ | $72.32 \%$ |
| $4.06 \%$ | $4.28 \%$ | $5.52 \%$ | $4.76 \%$ | $4.85 \%$ | $4.94 \%$ | $5.00 \%$ | $5.12 \%$ |


| (Total Deposits t- Total Deposits t-1)/ Total Deposits t-1 | $12.781 \%$ | $-6.539 \%$ | $2.098 \%$ | $5.036 \%$ | $3.040 \%$ | $3.018 \%$ | $3.583 \%$ | $3.218 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| (Total Assets t- Total Assets t-1)/ Total Assets t-1 | $9.399 \%$ | $1.861 \%$ | $-0.807 \%$ | $3.851 \%$ | $2.935 \%$ | $1.904 \%$ | $1.759 \%$ | $0.522 \%$ |

Financial Leverage Ratios:

| 9.695 | 13.108 | 11.863 | 12.889 | 14.423 | 17.309 | 24.958 | 75.658 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 0.065 | 0.102 | 0.104 | 0.103 | 0.103 | 0.105 | 0.106 | 0.109 |
| 0.907 | 0.929 | 0.922 | 0.928 | 0.935 | 0.945 | 0.961 | 0.987 |

Return on Equity
Return on Assets
Net Interest Margin

Payout Policy Ratios:
Dividend Payout Ratio
(Divs. + Repurchases)/NI

|  | 0.409 | 0.932 | 1.188 | 1.691 | 2.654 | 4.245 | 6.748 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0.285 | 0.427 | 1.392 | 1.781 | 2.551 | 4.030 | 6.406 | 0.000 |

## KeyCorp

Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding

| Number of Options Outstanding (shares): |  | 5 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Time to Maturity (years): |  | 4.40 |  |  |  |  |  |  |  |  |
| Expected Annual Number of Options Exercised: |  | 1 |  |  |  |  |  |  |  |  |
| Current Average Strike Price: | \$ | 18.28 |  |  |  |  |  |  |  |  |
| Cost of Equity: |  | 10.10\% |  |  |  |  |  |  |  |  |
| Current Stock Price: |  | \$14.43 |  |  |  |  |  |  |  |  |
| Fiscal Years Ending Dec. 31 |  | 2024E |  | 2025E |  | 2026E |  | 2027 E |  | 2028E |
| Increase in Shares Outstanding: |  | 1 |  | 4 |  | 9 |  | 13 |  | 5 |
| Average Strike Price: | \$ | 18.28 | \$ | 18.28 | \$ | 18.28 | \$ | 18.28 | \$ | 18.28 |
| Increase in Common Stock Account: |  | 20 |  | 69 |  | 165 |  | 231 |  | 92 |
| Share Repurchases (\$) |  | 15,632 |  | 15,073 |  | 13,599 |  | 10,745 |  | 5,887 |
| Expected Price of Repurchased Shares: |  | \$14.43 | \$ | 15.10 | \$ | 15.80 | \$ | 16.54 | \$ | 17.31 |
| Number of Shares Repurchased: |  | 1,083 |  | 998 |  | 861 |  | 650 |  | 340 |
| Shares Outstanding (beginning of the year) |  | 937 |  | 938 |  | 941 |  | 950 |  | 963 |
| Plus: Shares Issued Through ESOP |  | 1 |  | 4 |  | 9 |  | 13 |  | 5 |
| Less: Shares Repurchased in Treasury |  | - |  | - |  | - |  | - |  | - |
| Shares Outstanding (end of the year) |  | 938 |  | 941 |  | 950 |  | 963 |  | 968 |

KeyCorp
Present Value of Operating Lease Obligations

| Fiscal Years Ending Dec. 31 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | 120.0 | 116.0 | 110.0 | 149.0 | 142.0 | 142.0 | 142.0 | 140.0 | 110.0 | 134.0 | 823.0 |
| Year 2 | 114.0 | 102.0 | 103.0 | 133.0 | 132.0 | 133.0 | 131.0 | 131.0 | 92.0 | 123.0 | 615.0 |
| Year 3 | 95.0 | 95.0 | 87.0 | 115.0 | 117.0 | 118.0 | 117.0 | 116.0 | 79.0 | 104.0 | 485.0 |
| Year 4 | 87.0 | 95.0 | 71.0 | 98.0 | 101.0 | 104.0 | 101.0 | 97.0 | 66.0 | 87.0 | 316.0 |
| Year 5 | 71.0 | 79.0 | 59.0 | 83.0 | 89.0 | 90.0 | 82.0 | 79.0 | 50.0 | 72.0 | 192.0 |
| Thereafter | 411.0 | 370.0 | 326.0 | 390.0 | 381.0 | 321.0 | 265.0 | 233.0 | 84.0 | 137.0 | 445.0 |
| Total Minimum Payments | 898.0 | 857.0 | 756.0 | 968.0 | 962.0 | 908.0 | 838.0 | 796.0 | 481.0 | 657.0 | 2876.0 |
| Less: Cumulative Interest | 197.3 | 179.0 | 159.5 | 194.0 | 190.2 | 168.9 | 148.1 | 136.0 | 69.4 | 100.0 | 383.3 |
| PV of Minimum Payments | 700.7 | 678.0 | 596.5 | 774.0 | 771.8 | 739.1 | 689.9 | 660.0 | 411.6 | 557.0 | 2492.7 |
| Implied Interest in Year 1 Payment |  | 35.0 | 33.9 | 29.8 | 38.7 | 38.6 | 37.0 | 34.5 | 33.0 | 20.6 | 27.9 |
| Pre-Tax Cost of Debt | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% |
| Years Implied by Year 6 Payment | 5.8 | 4.7 | 5.5 | 4.7 | 4.3 | 3.6 | 3.2 | 2.9 | 1.7 | 1.9 | 2.3 |
| Expected Obligation in Year 6 \& Beyond | 71 | 79 | 59 | 83 | 89 | 90 | 82 | 79 | 50 | 72 | 192 |
| Present Value of Lease Payments |  |  |  |  |  |  |  |  |  |  |  |
| PV of Year 1 | 114.3 | 110.5 | 104.8 | 141.9 | 135.2 | 135.2 | 135.2 | 133.3 | 104.8 | 127.6 | 783.8 |
| PV of Year 2 | 103.4 | 92.5 | 93.4 | 120.6 | 119.7 | 120.6 | 118.8 | 118.8 | 83.4 | 111.6 | 557.8 |
| PV of Year 3 | 82.1 | 82.1 | 75.2 | 99.3 | 101.1 | 101.9 | 101.1 | 100.2 | 68.2 | 89.8 | 419.0 |
| PV of Year 4 | 71.6 | 78.2 | 58.4 | 80.6 | 83.1 | 85.6 | 83.1 | 79.8 | 54.3 | 71.6 | 260.0 |
| PV of Year 5 | 55.6 | 61.9 | 46.2 | 65.0 | 69.7 | 70.5 | 64.2 | 61.9 | 39.2 | 56.4 | 150.4 |
| PV of 6 \& beyond | 273.8 | 252.9 | 218.5 | 266.5 | 262.9 | 225.3 | 187.4 | 165.9 | 61.7 | 100.0 | 321.7 |
| Capitalized PV of Payments | 700.7 | 678.0 | 596.5 | 774.0 | 771.8 | 739.1 | 689.9 | 660.0 | 411.6 | 557.0 | 2492.7 |

## KeyCorp

Sensitivity Tables

Beta

| 16.89 | 1.12 | 1.17 | 1.22 | 1.27 | 1.32 | 1.42 | 1.52 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.03\% | 18.55 | 18.18 | 17.82 | 17.48 | 17.16 | 16.56 | 16.02 |
| 4.13\% | 19.00 | 18.62 | 18.26 | 17.91 | 17.59 | 16.98 | 16.43 |
| 4.23\% | 19.23 | 18.85 | 18.48 | 18.14 | 17.81 | 17.20 | 16.64 |
| 4.33\% | 19.23 | 18.85 | 18.48 | 18.14 | 17.81 | 17.20 | 16.64 |
| 4.43\% | 19.00 | 18.62 | 18.26 | 17.91 | 17.59 | 16.98 | 16.43 |
| 4.53\% | 18.55 | 18.18 | 17.82 | 17.48 | 17.16 | 16.56 | 16.02 |
| 4.63\% | 17.94 | 17.57 | 17.22 | 16.89 | 16.57 | 15.99 | 15.46 |


|  |  |  |  |  | $V$ Growth |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16.89 | 2.20\% | 2.30\% | 2.40\% | 2.50\% | 2.60\% | 2.70\% | 2.80\% |
|  | 4.30\% | 17.27 | 17.21 | 17.19 | 17.19 | 17.21 | 17.27 | 17.35 |
|  | 4.40\% | 17.58 | 17.52 | 17.49 | 17.49 | 17.52 | 17.58 | 17.68 |
| ※ | 4.50\% | 17.75 | 17.68 | 17.65 | 17.65 | 17.68 | 17.75 | 17.85 |
| 立 | 4.60\% | 17.75 | 17.68 | 17.65 | 17.65 | 17.68 | 17.75 | 17.85 |
| $\stackrel{\sim}{\sim}$ | 4.70\% | 17.58 | 17.52 | 17.49 | 17.49 | 17.52 | 17.58 | 17.68 |
|  | 4.80\% | 17.27 | 17.21 | 17.19 | 17.19 | 17.21 | 17.27 | 17.35 |
|  | 4.90\% | 16.82 | 16.77 | 16.75 | 16.75 | 16.77 | 16.82 | 16.89 |


|  |  |  |  |  | CV ROE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16.89 | 12.01\% | 12.16\% | 12.31\% | 12.46\% | 12.61\% | 12.76\% | 12.91\% |
|  | 22.30\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.40\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| $\stackrel{ \pm}{*}$ | 22.50\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| $\stackrel{\sim}{\times}$ | 22.60\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
| $\stackrel{\text { ® }}{\sim}$ | 22.70\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.80\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |
|  | 22.90\% | 16.81 | 16.76 | 16.74 | 16.74 | 16.76 | 16.81 | 16.89 |

KeyCorp
Valuation of Options Granted under ESOP

| Current Stock Price | $\$ 14.43$ |
| :--- | ---: |
| Risk Free Rate | $4.60 \%$ |
| Current Dividend Yield | $5.45 \%$ |
| Annualized St. Dev. of Stock Returns | $40.00 \%$ |


| Range of | Number <br> of Shares | Average <br> Exercise <br> Price | Average <br> Remaining <br> Life (yrs) | B-S <br> Option <br> Price | Value <br> of Options <br> Granted |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Outstanding Options | 4.86 | 18.28 | 4.40 | $\$$ | 2.70 | $\$$ |
| Range 1 | 5 | $\$$ | 18.28 | 4.40 | $\$$ | 4.35 |
| Total | $\$$ | 13.10 |  |  |  |  |

