

The Henry Fund

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JPMorgan Chase & Co. (JPM)

Diversified Banks – Financial Services

April 10, 2024

Stock Rating

SELL

Investment Thesis

We recommend a **SELL rating** on JP Morgan Chase & Co. (JPM) with a target price range of \$159-160 with a projected loss of 14%. JPM is coming off an unsustainable record year in 2023 leading investors to overvalue the stock.

Drivers of Thesis

- Interest income ballooned to a staggering \$171B due to high interest rates on loans but we expect a decrease in demand for loans in the short term paired with potential rate cuts will result in interest income decreasing back to a standard level of around \$120B.
- JPM has historically traded at a significant premium compared to peers. JPM's P/B ratio has increased from 1.57 in 2022 to 1.87 in 2023. This, paired with its premium that has begun to dwindle throughout 2023 and into 2024, we believe competitors have an increased opportunity to outperform JPM.
- JPM is twice the size of its leading competitor and could face difficulties continuing to grow in a year where real GDP growth is expected to slow to 2%.

Risks to Thesis

- JPM has a well-diversified revenue stream comprising of various business segments that rival billion-dollar peers on its own. Its recent acquisition of First Republic Bank has grown its Wealth Management and Commercial Banking sectors by 20% and 46% YoY and should continue to maintain market share through 2024.
- JP Morgan is the largest bank with customer loyalty, a strong balance sheet, and good credit quality that would allow them to push through a potential recession or high interest rates for an extended period.

Earnings Estimates

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$15.39	\$12.10	\$16.25	\$15.97	\$16.51	\$17.80
HF est. growth	73.1%	(21.4%)	34.3%	(10.7%)	6.3%	21.3%

12 Month Performance



Target Price

\$159-160

Henry Fund DCF	\$160
Henry Fund DDM	\$159
Relative Multiple	\$124

Price Data

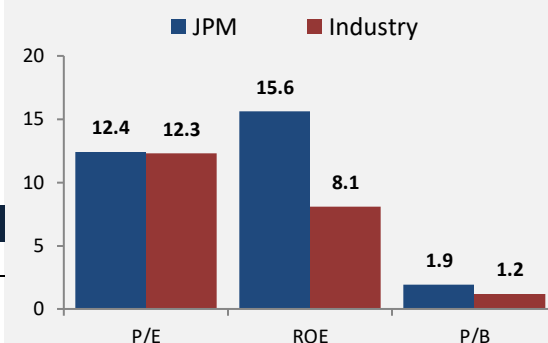
Current Price	\$197.15
52wk Range	\$126.22 – 200.94
Consensus 1yr Target	\$209.41

Key Statistics

Market Cap (B)	\$571.7
Shares Outstanding (M)	2,939
Institutional Ownership	73.27%
Beta	1.00
Dividend Yield	2.33%
Est. 5yr Growth	3.5%
Price/Earnings (TTM)	12.3
Price/Earnings (FY1)	11.7
Price/TBV (TTM)	2.34
Price/Book (mrq)	1.87

Profitability

Net Interest Margin	2.37%
Profit Margin	31.34%
Return on Assets (TTM)	1.31%
Return on Equity (TTM)	15.11%

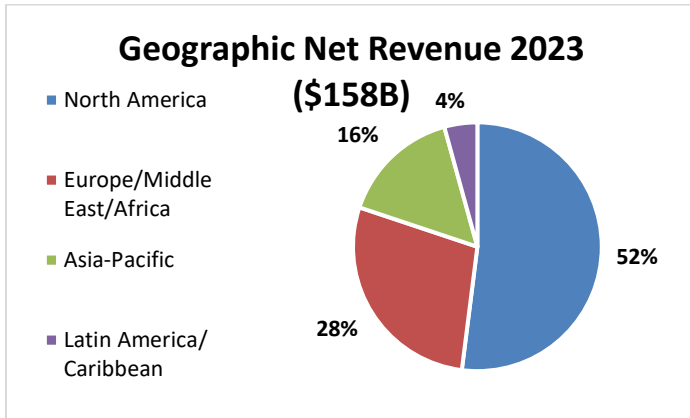


Company Description

JPMorgan Chase & Co. is the largest diversified bank in the world and operates through various divisions including Corporate and Investment Banking, Asset and Wealth Management, Commercial Banking, Consumer and Community Banking, and Private Banking. Headquartered in New York City, JP Morgan operates in over 100 countries and utilizes its various financial operating segments to serve millions of clients around the world.

COMPANY DESCRIPTION

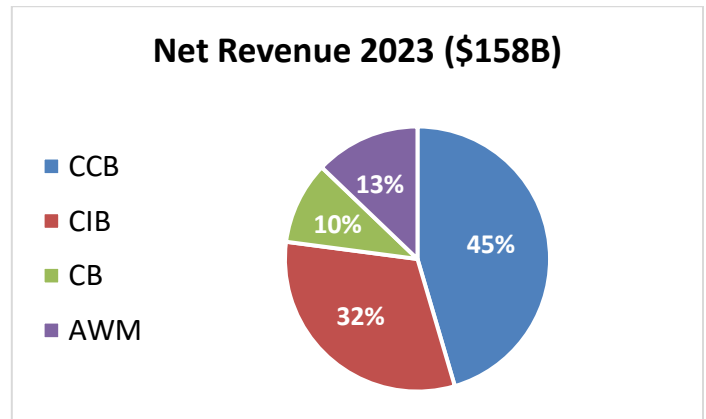
JPMorgan Chase & Co. (JPM), often referred to as JP Morgan, stands as a powerhouse in the global financial market. Based out of New York City, JPM boasts a presence in more than 100 countries, catering to a vast clientele that spans corporations, governments, institutional investors, and everyday individuals. A geographic net revenue breakdown is shown below:



Source: JP Morgan 2023 10-K_[1]

JPM’s rich history dates back to the 1800s, and over time, it has grown and adapted through mergers and acquisitions. The company has now solidified its position as a frontrunner in numerous financial services fields including Corporate and Investment Banking (CIB), Asset and Wealth Management (AWM), Consumer and Community Banking (CCB), and Commercial Banking (CB). JPM additionally has a corporate segment as well that provides internal services and is considered separate from the company’s other four segments. These segments work synergistically to increase efficiency and offer a wide array of banking products and services to clients. A net revenue

breakdown between JPM’s four segments for FY2023 is shown below:



Source: JP Morgan 2023 10-K_[1]

Consumer & Community Banking

Consumer & Community Banking serves individuals and small businesses through various channels such as bank branches, ATMs, online, mobile, and telephone banking. Within CCB, there are different areas:

- Banking & Wealth Management
 - Consumer Banking
 - J.P. Morgan Wealth Management
 - Business Banking
- Home Lending
 - Production
 - Servicing
 - Real Estate Portfolios
- Card Services & Auto

Banking & Wealth Management as a whole offers a range of deposit, investment, lending, cash management, and payment services. Home Lending involves activities related to mortgage origination, servicing, and portfolios comprising residential mortgages and home equity loans. Card Services & Auto division issues credit cards, provides travel services, and handles auto loan origination and

servicing, including leases. A general overview of the CCB segment financials is shown below:

Consumer & Community Banking			
USD Millions	2023	2022	2021
Non-interest revenue	\$15,118	\$14,886	\$17,092
Net interest income	\$55,030	\$39,928	\$32,787
Non-interest expense	\$34,819	\$31,208	\$29,028
Net income	\$21,232	\$14,916	\$20,957
Total Assets	\$642,951	\$514,085	\$500,370
ROE	38%	29%	41%

Source: JP Morgan 2023 10-K_[1]

CBB earned over \$70B in net revenue in 2023 representing a growth of 28% YoY_[1]. CBB deposits decreased slightly by 3.25% due to increased customer spending which was partially offset by the First Republic acquisition_[1]. Loans also increased by 13% paired with higher interest rates were the primary drivers behind net interest income increasing in 2023 by 37.8% YoY_[1]. JP Morgan's gross loans have grown at 7.5% CAGR over the past 5 years. This figure has been reduced to 6.5% CAGR in projections to account for an abnormal amount of growth in 2023 tied to the First Republic acquisition.

Corporate & Investment Banking

JPM's Corporate & Investment Banking segment is made up of Banking and Markets & Securities Services and provides a wide range of investment banking, market-related activities, lending, and treasury services to clients worldwide, including corporations, investors, financial institutions, merchants, and government entities. A general overview of the CIB segment financials is shown below:

Corporate & Investment Banking			
USD Millions	2023	2022	2021
Non-interest revenue	\$40,315	\$36,202	\$38,403
Net interest income	\$8,492	\$11,900	\$13,540
Non-interest expense	\$28,594	\$27,350	\$25,553
Net income	\$14,129	\$14,925	\$21,107
Total Assets	\$1,338,168	\$1,334,296	\$1,259,896
ROE	13%	14%	25%

Source: JP Morgan 2023 10-K_[1]

In banking, clients can access various investment banking services like corporate advisory, capital raising through equity and debt markets, and loan services. Additionally, the Payments division within Banking offers global payment solutions covering liquidity management,

commerce, clearing, and trade. Investment banking fees dropped by 5% in 2023 YoY mostly driven by advisory and debt underwriting fees dropping by 8% YoY_[1]. The decrease in the volume of deals in 2023 is the primary driver of the decrease in advisory and debt underwriting fees. This was partially offset by an increase of 11% YoY in equity underwriting fees_[1]. JPM's CIB segment remains ranked #1 in global investment banking fees among their peers so there is little concern given for CIB's recent drop in fees. We forecast investment banking fees will decrease by 1% YoY in 2024 and hold at a steady 1-2% growth rate in the coming years as the investment banking market demand for deals continues to rebound from a challenging economic environment.

The Markets & Securities Services division is split into two sections. Markets serve as a global market-maker for cash and derivative instruments, offering risk management solutions, prime brokerage, clearing, and research. Securities Services, on the other hand, is a top global custodian offering custody, fund accounting, and securities lending (primarily to asset managers, insurance companies, and investment funds, both public and private). Principal transactions have grown at a 22% CAGR and we expect sustained growth of 15% to continue through 2024 and another 10% in 2025.

Asset & Wealth Management

JP Morgan's Asset & Wealth Management segment is a leading global player in investment and wealth management, boasting a remarkable \$5T in client assets.

In the realm of Asset Management, it offers a variety of investment solutions covering equities, fixed income, alternatives, and money market funds, serving both institutional and retail investors with a wide array of investment needs.

The Global Private Bank segment caters specifically to high-net-worth clients, providing them with an extensive range of services, including retirement products,

brokerage, custody, estate planning, lending, deposits, and investment management.

The majority of AWM's client assets are actively managed portfolios, demonstrating the firm's dedication to crafting personalized and actively adjusted investment strategies.

Asset & Wealth Management			
USD Millions	2023	2022	2021
Non-interest revenue	\$13,560	\$12,507	\$13,071
Net interest income	\$6,267	\$5,241	\$3,886
Non-interest expense	\$12,780	\$11,829	\$10,919
Net income	\$5,227	\$4,365	\$4,737
Total Assets	\$245,512	\$232,037	\$234,425
ROE	31%	25%	33%

Source: JP Morgan 2023 10-K_[1]

AWM's net income and net interest income were both up 20% in 2023 YoY_[1]. The First Republic acquisition provided JPM's AWM segment with higher average loans. Commissions and asset management fees both increase largely due to growth in private banking advisor teams. The First Republic acquisition has allowed JPM to grow its wealth management section and increase access to a wealthier group of clients.

Commercial Banking

Commercial Banking offers a wide array of financial services tailored to different client groups, including lending, payment solutions, investment banking, and asset management products. These services are primarily targeted at three main client segments:

1. **Middle Market Banking:** This segment serves small and medium-sized businesses, local governments, and nonprofit organizations.
2. **Corporate Client Banking:** Catering to large corporations, this segment provides specialized financial solutions to meet their unique needs.
3. **Commercial Real Estate Banking:** This segment focuses on serving investors, developers, and owners involved in various types of real estate

properties, including multifamily, office, retail, industrial, and affordable housing.

Additionally, the "Other" category includes miscellaneous amounts that do not fall under any of the primary client segments.

Commercial Banking			
USD Millions	2023	2022	2021
Non-interest revenue	\$3,494	\$3,336	\$3,929
Net interest income	\$12,052	\$8,197	\$6,079
Non-interest expense	\$5,378	\$4,719	\$4,041
Net income	\$6,143	\$4,213	\$5,246
Total Assets	\$300,325	\$257,106	\$230,776
ROE	20%	16%	21%

Source: JP Morgan 2023 10-K_[1]

Net income increased by a staggering 46% in 2023 YoY_[1]. Net interest income was the primary driver behind this as it grew by 47% due to deposit margins expanding on higher rates and higher average loans through the acquisition of First Republic_[1]. While the interest spread should decrease in 2024, we forecast that lending and deposit-related fees will grow by 5% this year. We expect card income to increase by about 7% this year as well as consumer spending has continued to persist.

Corporate

The Corporate segment is divided into two main parts:

- Treasury and Chief Investment Office ("CIO")
- Other Corporate.

Treasury and CIO primarily monitor and handle tasks related to measuring, monitoring, reporting, and managing the firm's liquidity, funding, capital, structural interest rate, and foreign exchange risks.

The Other Corporate division is made up of various staff functions and expenses that are centrally managed, along with specific firm initiatives and activities not directly tied to a particular business segment. Key functions within Other Corporate include Real Estate, Technology, Legal, Corporate Finance, Human Resources, Internal Audit, Risk Management, Compliance, Control Management, Corporate Responsibility, and several other corporate groups.

RECENT DEVELOPMENTS

Recent Earnings Announcement

JP Morgan reported its FY23 Q4 Earnings on January 12, 2024. The company reported revenue of \$39.94B which was a 12% growth YoY and slightly beat analysts' expectations of \$39.78B. The company also reported a net income of just \$9.31B which represents a decline by 15% YoY and only \$3.04 EPS compared to expectations of \$3.32 EPS. CEO Jamie Dimon said this drop in EPS was largely due to having to pay a \$2.9B fee that was tied to government seizures relating to the regional bank failures in 2023. This fee was used to replenish losses from a fund that was utilized to help uninsured deposits from the failed regional banks. JPM stated that had this \$2.9B fee and \$743M in investment losses not been sustained, earnings would have been \$3.97 EPS. Jamie Dimon added the leading driver in record full-year earnings for the company was its net interest income and credit quality being higher than expected. The company has seen its stock price soar over 15% in the 3 months since Q4 earnings were released.

First Republic Acquisition

On May 1, 2023, First Republic Bank failed and in turn, got purchased by JP Morgan. The company's loan-to-deposit ratio was standing at 111% which means they had loaned out more money than they had in customer deposits. JP Morgan saw this as an opportunity and acquired First Republic Bank to bolster its presence in private banking and wealth management. First Republic had a strong reputation for serving high-net-worth individuals, offering personalized services in areas like wealth management and lending. JP Morgan saw this acquisition as a way to improve its services for wealthy clients and strengthen its position in key markets. This in turn helped broaden JPM's revenue streams and expand its wealth management and private banking offerings. First Republic's customer deposits are now insured in a separate holding from JPM's current customers' deposits. This was done to ensure existing clients would not fear their money is not safe with JPM. In a year where JP Morgan set many personal bests in financial metrics, its acquisition of First Bank has played a big role. \$4.1B of the company's \$49B net income was directly from First Republic.

INDUSTRY TRENDS

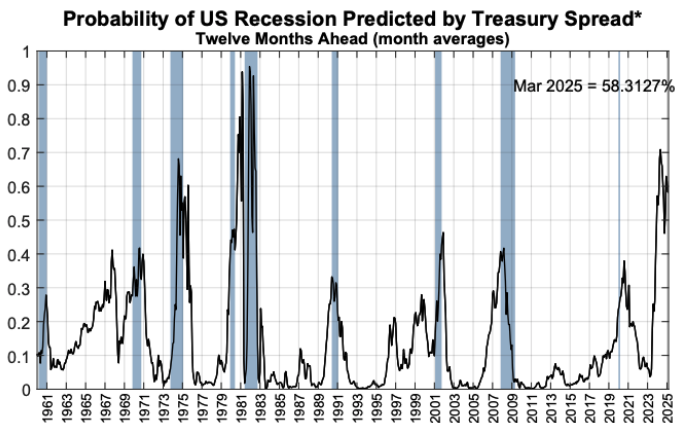
Inverted Yield Spread

Yield Spread: 10-Year Vs. 2-Year Treasury



Source: NetAdvantage – Multinational Banks^[11]

The Treasury yield curve has plunged into negative territory since 2022. An inverted yield curve typically precedes a recession and while the U.S. has not gone into one yet, there is still about a 58% chance of a recession happening by March 2025^[13].



Source: New York Fed^[13]

The inverted yield curve could hurt bank profits from their assets and the possibility of a recession could make investors wary quickly. Consumer confidence has remained relatively strong, but it is something to monitor over the course of 2024 that could impact banks' performance.

SVB Collapse

2023 was a year to forget for regional banks to put it lightly. On March 10, 2023, Silicon Valley Bank (SVB) became the third-largest bank failure in U.S. history. Following a bank run, the California Department of Financial Protection & Innovation decided to close SVB and the FDIC would take control of all deposits and assets of the bank. On March 26, 2023, the FDIC entered into a purchase agreement for most of SVB’s deposits which are now under the control of Silicon Valley Bridge Bank, National Association^[14].

While SVB was the first bank to fail in 2023, they certainly were not the last as Signature Bank, First Republic Bank, Heartland Tri-State Bank, and Citizens Bank all failed soon after. Each of these banks was acquired by a bigger bank, most notably First Republic Bank being acquired by JP Morgan. These regional banks needed bailed out and JP Morgan with the strongest balance sheet among banks found themselves in the mix. There has been a growing sentiment that the public feels less safe with their money in a smaller regional bank due to these closures. JP Morgan has found themselves as a beneficiary as customers feel safe putting their money in its accounts. After JPM’s deposits slipped by about 5% in 2022, this public sentiment and the First Republic acquisition have allowed JPM to rebound and grow its deposits by about 2.6% in 2023^[2]. As the market continues to shift and rebalance, we project JPM’s deposits to slightly decrease by 0.75% in 2024.

MARKETS AND COMPETITION

When looking at JPM, it has a big conglomerate of banking products and services and is the biggest diversified bank in the world. The biggest competitors to JPM consist of: Bank of America Corp. (BAC), Wells Fargo & Company (WFC), Morgan Stanley (MS), Goldman Sachs Group, Inc. (GS), and Citigroup Inc. (C).

Company	Net Rev.*	Net Income*	Market Cap (\$B)
JPM	158,104	49,552	567.9
BAC	98,581	26,515	297.0
WFC	82,597	19,029	208.7
MS	54,143	9,230	159.7
GS	46,254	8,516	141.1
C	78,462	9,382	121.8

Source: FactSet^[2]

*figures in USD millions

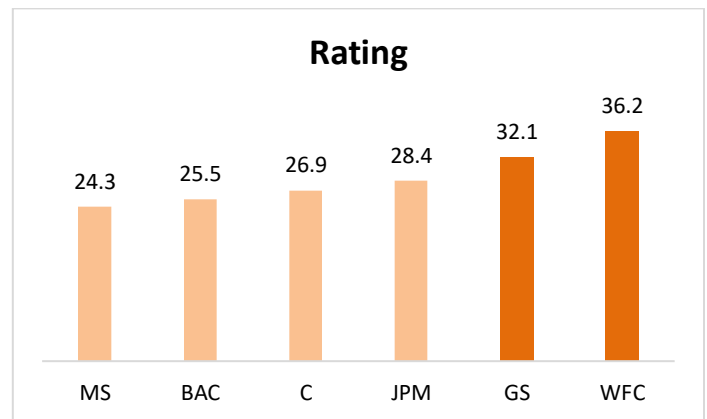
Threat of Substitutes

In the banking world, there is a wide range of alternatives available. Apart from the traditional roles of accepting deposits and loaning money, banks provide various services like insurance, mutual funds, and fixed-income securities. However, it is not just banks in the game—many non-banking financial firms offer similar services. And then there are unconventional players like Mercedes-Benz, General Motors, and Microsoft stepping into the ring, competing with big banks by offering attractive financing deals, sometimes even at 0% interest rates, to customers purchasing high-value items.

Competitive Rivalry

The diversified banking sector faces intense competition due to its long history and saturated market. To attract customers, banks often resort to offering lower financing rates and preferred investment services, which can reduce their profitability and lead them to pursue riskier ventures. Looking ahead, we expect more consolidation in the banking industry as larger banks may find it cost-effective to merge with or acquire smaller competitors instead of increasing spending on marketing. However, we also expect merger and acquisition activity to remain subdued in 2024, depending on factors like monetary policy changes and the emergence of catalysts amidst pent-up demand and stable interest rates.

ESG Analysis



Source: Sustainalytics^[15]

A company’s ESG rating stands for environmental, social, and corporate governance rating. It has become increasingly important for companies to show investors, customers, and regulators that they are committed to

practicing sustainable operations as well as being socially responsible. The graph above shows MS, BAC, C, and JPM are at a medium risk whereas GS and WFC are considered high risk. This is largely due to these diversified and multinational banks financing a lot of fossil fuel companies and their operations. JP Morgan is the largest funder for fossil fuels in the world which is why they are near the higher end amongst their peers.

Bank of America Corp. (BAC)

Bank of America Corp. is a financial institution and holding company that offers a range of banking and financial services. Its operations are divided into various segments including Consumer Banking (CB), Global Wealth and Investment Management (GWIM), Global Banking (GB), Global Markets (GM), and All Other. The company was established by Amadeo Peter Giannini in 1904 and is based in Charlotte, North Carolina.

USD Million	2023	2022	2021
Net Interest Income	56,931	52,462	42,934
Non-interest Income	41,650	42,488	46,179
Non-interest Expense	65,845	61,438	59,731
Net Income	26,515	26,015	30,557
Total Assets	3,180,151	3,051,375	3,169,495
Net Loans	1,040,390	1,033,065	966,737
Total Deposits	1,923,827	1,930,341	2,064,446

Source: FactSet^[2]

Bank of America has a well-diverse revenue stream with CB generating 42%, GWIM generating 21%, GB generating 25% and GM generating 20% while All Other brought revenue down by \$8B. This revenue is highly concentrated in the U.S. at over 87%, giving JPM an advantage in international exposure.

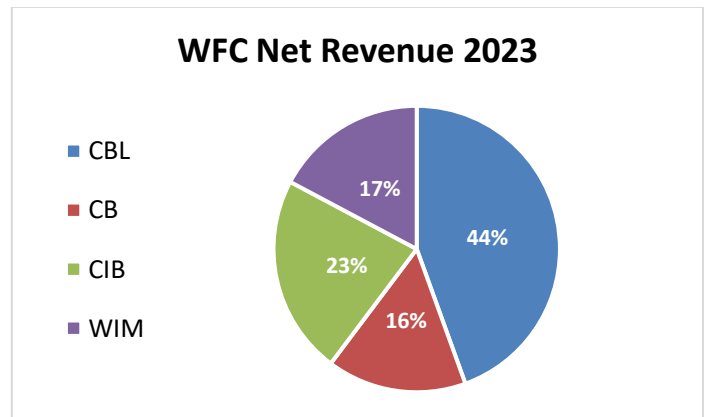
Wells Fargo & Company (WFC)

Wells Fargo & Co. is a versatile financial services company rooted in communities. Its offerings span banking, insurance, investments, mortgages, and consumer and commercial finance. The company operates through segments including Consumer Banking and Lending (CBL), Commercial Banking (CB), Corporate and Investment Banking (CIB), and Wealth & Investment Management (WIM). Established by Henry Wells and William G. Fargo on March 18, 1852, its headquarters are in San Francisco, California.

USD Million	2023	2022	2021
Net Interest Income	52,375	44,950	35,779
Non-interest Income	30,222	28,835	42,713
Non-interest Expense	55,562	57,282	53,831
Net Income	19,142	13,182	21,548
Total Assets	1,932,468	1,881,016	1,948,068
Net Loans	922,076	942,886	882,904
Total Deposits	1,358,173	1,383,985	1,482,479

Source: FactSet^[2]

Wells Fargo is most similar to JP Morgan in the way they diversify its business segments. A breakdown of its revenues can be seen below:



Source: WFC 2023 10-K^[8]

WFC's revenue stream mix is almost identical to JP Morgan's except with a smaller corporate and investment banking sector. A key differentiator for JP Morgan however is WFC only operates within the U.S. which allows for JPM to have a geographical advantage. It should be noted that WFC tends to have a worse public reputation due to various regulatory issues revolving around sales practices and fraudulent accounts.

Morgan Stanley (MS)

Morgan Stanley functions as a worldwide financial services enterprise, offering investment banking solutions to a diverse clientele ranging from corporations and governments to financial institutions and individuals. Its operations are organized into segments including Institutional Securities, Wealth Management, and Investment Management. Established by Harold Stanley and Henry S. Morgan in 1924, the company is based in New York City.

USD Million	2023	2022	2021
Net Interest Income	8,230	9,327	8,045
Non-interest Income	45,913	44,341	51,710
Non-interest Expense	41,798	39,299	40,083
Net Income	9,230	11,179	15,120
Total Assets	1,193,693	1,180,231	1,188,140
Net Loans	218,640	213,785	188,134
Total Deposits	351,804	356,646	347,574

Source: FactSet_[2]

Morgan Stanley compares very well to JP Morgan's investment banking and wealth management business sections. While still slightly smaller than JP Morgan's sectors, MS has a greater focus on wealth management as 45% of its revenue is derived from the sector.

Goldman Sachs Group, Inc. (GS)

The Goldman Sachs Group, Inc. offers a range of financial services. It operates across distinct business segments including Global Banking and Markets, Asset and Wealth Management, and Platform Solutions. Founded by Marcus Goldman in 1869, the company is headquartered in New York City.

USD Million	2023	2022	2021
Net Interest Income	6,351	7,678	6,470
Noninterest Income	39,903	39,687	52,869
Noninterest Expense	34,487	31,164	31,938
Net Income	8,516	11,261	21,635
Total Assets	1,641,594	1,441,799	1,463,988
Net Loans	183,358	179,286	158,562
Total Deposits	428,417	386,665	364,227

Source: FactSet_[2]

Both Goldman Sachs and JP Morgan stand out as leading institutions in investment banking and market making. However, JP Morgan sets itself apart by also maintaining a significant portion of its revenue from Retail Banking, which enhances its revenue diversification compared to Goldman Sachs. Goldman Sachs heavily relies on its Global Banking and Markets segment, which contributes over 70% of its revenue. In global M&A Advisor rankings and Global Equity Capital Markets Bookrunning rankings, Goldman Sachs outperforms JP Morgan. However, JP Morgan holds a ranking edge in Global Debt Capital Markets and Global Investment Banking.

Citigroup Inc. (C)

Citigroup, Inc. is a holding company that offers a variety of financial products and services. Its operations are divided into segments including Global Consumer Banking, Institutional Clients Group, and Corporate and Other. Established in 1812, the company is headquartered in New York City.

USD Million	2023	2022	2021
Net Interest Income	54,900	48,688	42,494
Non-interest Income	23,562	26,670	29,390
Non-interest Expense	56,366	51,292	48,193
Net Income	9,228	14,845	21,952
Total Assets	2,411,834	2,416,676	2,291,413
Net Loans	671,217	640,247	651,312
Total Deposits	1,308,681	1,365,954	1,317,230

Source: FactSet_[2]

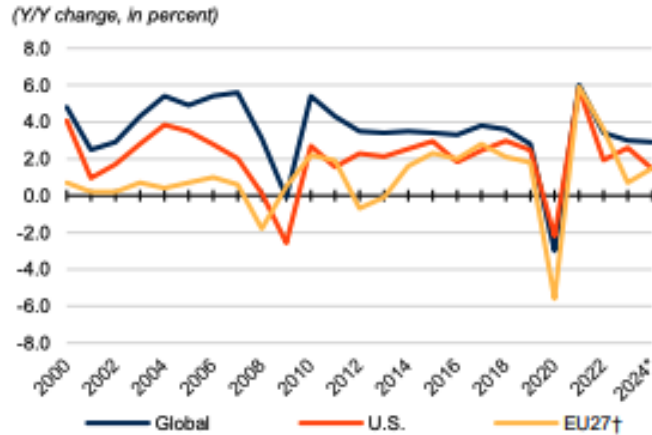
Citi is a multinational bank with international operations making up over 50% of the company's revenue stream when compared to the U.S. JP Morgan dwarfs Citi's investment banking operations and has a more diverse revenue stream through its business segments. However, Citi boasts a strong consumer banking segment that features prominent credit card services as well as retail banking operations.

ECONOMIC OUTLOOK

Real GDP Growth

Multinational and diversified banks tend to do well when Real GDP is growing at a higher rate. Unfortunately, due to expected rate cuts towards the end of 2024, U.S. real GDP is expected to slow down. The World Bank is forecasting U.S. real GDP to be around 1.5% in 2024 which can be seen in the graph below:

Real GDP Growth



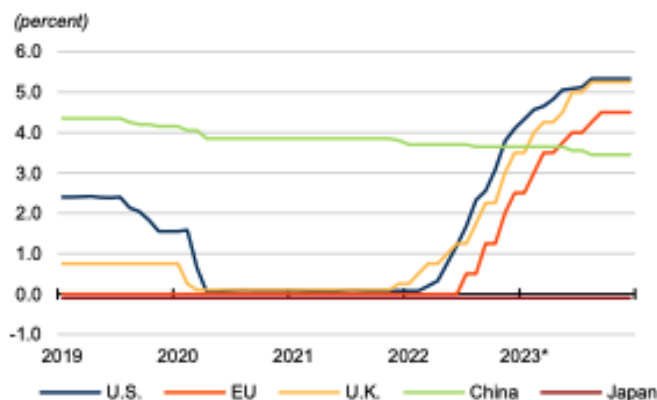
Source: NetAdvantage – Multinational Banks^[11]

The IMF is projecting real GDP to be around 2.9% in 2024 which is more in line with our estimates. Regardless, as GDP slows in 2024, we can expect banks to have less demand for financial services, decreased investment activities due to investors becoming more cautious, and credit quality concerns. It is safer to invest in bigger financial institutions in this scenario with strong balance sheets in order to prevent potential debt repayment risks.

Federal Funds Rate

When considering diversified and multinational banks, it is essential to look at global interest rates as each region can play a specific role in how a bank is able to lend and borrow money. We have seen global interest rates rise considerably over the past 2 years, most notably with the U.S. and the U.K. raising rates up to 5.25-5.50% in Q3 of 2023.

Global Interest Rates



Source: NetAdvantage – Multinational Banks^[11]

We expect at least 1 U.S. rate cut by the end of 2024 with a possibility of 2 or 3. This would reduce the amount of interest banks can charge clients for loans while simultaneously reducing the interest banks must pay clients on interest-bearing accounts. Historical trends have shown when interest rates are reduced, interest spreads also reduce^[12]. This reduction can be offset by increased consumer confidence and loan demand. Overall, lowering interest rates should be beneficial for diversified banks in 2024 but it is important to monitor lending demand as rate cuts occur.

VALUATION

Loans

This is the largest asset account for JPM, making up over 34% of its total assets. JPM's gross loans have been growing at a 7.33% CAGR over the last 5 years. The company's acquisition of First Republic drastically increased JPM's gross loans in 2023. As interest rate cuts are delayed, the demand for loans in 2024 should decrease as well. Due to the uncertainty in interest rates over the next few years, we have opted to grow the company's gross loans at a 4.5% CAGR for the forecasted term.

Deposits

This is the largest liability account accounting for 68% of total liabilities. Of the \$2.4T in customer deposits, about 28% of them are non-interest-bearing accounts compared to 72% being interest-bearing accounts. Since JP Morgan loans money based on the amount of customer deposits available to them, we forecasted deposits as a percentage of loans. Historically, deposits have ranged from 150%-200% depending on economic conditions. As high interest rates persist for the foreseeable future with slowing Real GDP growth, we have decided to forecast customer deposits at a slightly conservative value of 178% of gross loans.

Net Interest Income

Net Interest Income is the interest income a bank generates minus the interest expense a bank incurs. JPM experienced a record year for net interest income as it grew almost 34% to nearly \$90B in 2023. We believe this level of net interest income is unsustainable due to its

recent acquisition of First Republic. We project JPM's loan volume to increase at a rate of 4.5% CAGR and have forecasted average interest income rates at 8.5% before slowly dwindling to 6.5% in the forecasted timeline. JP Morgan has been able to pay lower interest rates on customer deposits primarily due to market share and name recognition compared to its peers. As interest rates begin to decrease over the next few years, we project to see JPM's Interest expense decrease from 3% to 1.25% in the forecasted timeline.

Non-Interest Income

Non-interest income represents the revenue generated by JP Morgan outside of its conventional banking activities. This includes revenue through investment banking fees, principal transactions, various lending and deposit-related charges, asset management fees, mortgage-related fees, card income, and more. The two largest revenue accounts consist of principal transactions making up 36% of total non-interest revenue and asset management fees making up 22% of non-interest revenue. We project asset management fees to grow by 4% in 2024 due to an increase in investors seeking guidance in volatile markets. In asset management fees in 2023, driven by investors seeking guidance from professional advisors in volatile markets. Our projections for total fee income are conservative at a CAGR of 3.97% through the forecasted period.

Cost of Equity

We calculate our Cost of Equity through the CAPM model, including the following factors:

- 10-year U.S. Treasury rate: 4.35%
- JPM's 2-year weekly Raw Beta derived from Bloomberg: 1.002
- Equity Risk Premium estimate from the Henry Fund: 5.00%

We came to an estimated Cost of Equity of 9.36%.

DCF Valuation

We built both a Discounted Cash Flow (DCF) model and an Economic Profit (EP) to derive a target price of \$160. We calculated Free Cash Flow to Equity (FCFE) and Equity EP to account for interest accounts that would not normally be included in a DCF and EP model but are necessary for

valuing a bank. Our key assumptions included a CV year ROE of 10.43% and our cost of equity at 9.36%.

DDM Valuation

Our Dividend Discount Model relies on the premise that JPM will continue to pay a dividend consistent with historical trends of increasing at a steady, predictable rate. In Q1 of 2024, JPM announced a dividend of \$1.15 we assume that will continue quarterly through 2024 resulting in a \$4.60 DPS in 2024. We have then continued to grow JPM's DPS by \$0.40 per year for 5 years and then by \$0.60 for the remaining 5 years. Our model was computed with a 3.5% continuing value (CV) growth of EPS, a CV year ROE of 10.43% due to limited growth potential, and our cost of equity of 9.36%. This model gave us an intrinsic value of \$159 which is consistent with our DCF valuation model.

Relative Valuation

Our relative valuation model is based on the peer group discussed within our Markets and Competition section. We believe each peer has a distinct comparison to JPM in one way or another but there is quite a discrepancy in the trading multiples resulting in a very low target price of \$124. We believe banks' P/E ratios are not the best way to value the company and rather focused our attention on Price/Book Value (P/B) based on each company's 2023 book values. The peer average P/B value was 1.18x compared to JPM having a current P/B value of 1.87x. We believe that due to JPM's size profile and diversified business segments, our relative valuation does not accurately value JPM.

KEYS TO MONITOR

JP Morgan Drivers

Regional Bank Failures: The recent trend in regional bank failures that plagued 2023 ended up benefitting JP Morgan in a variety of ways. They were able to purchase First Republic Bank following its failure which directly benefited the company's loan volume as well as increased its interest spread on loans as well. JPM was able to grow its AWM and CB business segments by 20% and 47% respectively as well.

Indirectly, other regional bank failures allowed JP Morgan to benefit off the backs of wary customers who were looking for safety after their regional bank failed. As high

interest rates look to persist through 2024, we could very well see more regional banks fail through the rest of the year which would have a positive impact on JP Morgan's customer deposits.

Size and Diversification: JP Morgan has nearly double the market cap of its closest peer and boasts a robust balance sheet with nearly \$3.9B in assets diversified across 4 major business segments. Each business segment is bigger than most regional banks, allowing JP Morgan to be a comfortable place for customers to deposit and invest within hardened economic conditions.

JP Morgan Risks

Limited Growth Potential: While size can be a pro for JP Morgan, it can also be a massive deterrent in the investing market. As big as JPM has grown compared to its peers, it will often need to look to M&A or rely on market growth within its operating sectors. In an economy where real GDP is expected to be slow and interest rates will remain elevated for the foreseeable future, market growth will be severely hard to come by. JP Morgan's main other option would be to take the risk of overpaying for a smaller company to increase its earnings.

Unsustainable Interest Income: Interest income generated was at an all-time high of \$171B in 2023 representing an increase of 84% YoY. This was largely due to increased loan volume with higher interest rates that were acquired through the First Republic transaction. In a year where loan volume was expected to increase marginally, the acquisition drove gross loans to increase by almost 17%. In 2024 we expect there to be smaller growth by 4.5%. If loans continue to grow at a high rate in high interest rate environments, however, JPM could perform well in 2024.

11. NetAdvantage – Multinational Banks
12. International Monetary Fund
13. New York Fed
14. FDIC
15. Sustainalytics
16. JP Morgan 2023 Q4 Earnings Call

DISCLAIMER

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2. FactSet
3. Yahoo Finance
4. Statista
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6. BAC 2023 10-K
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8. WFC 2023 10-K
9. GS 2023 10-K
10. MS 2023 10-K

J.P. Morgan
Sensitivity Tables

DCF		Equity Risk Premium						
Risk-Free Rate	160.07	4.70%	4.80%	4.90%	5.00%	5.10%	5.20%	5.30%
4.05%	178.77	175.38	172.10	172.10	165.88	162.93	160.07	160.07
4.15%	175.38	172.10	168.94	168.94	162.93	160.07	157.30	157.30
4.25%	172.10	168.94	165.88	165.88	160.07	157.30	154.62	154.62
4.35%	172.10	168.94	165.88	165.88	160.07	157.30	154.62	154.62
4.45%	165.89	162.93	160.07	160.07	154.62	152.03	149.51	149.51
4.55%	162.93	160.07	157.31	157.31	152.03	149.51	147.07	147.07
4.65%	160.07	157.31	154.63	154.63	149.51	147.07	144.70	144.70

DCF		CV Growth of NOPLAT						
Beta	160.07	2.25%	2.50%	2.75%	3.00%	3.25%	3.50%	3.75%
0.70	208.37	210.73	213.31	216.16	219.33	222.85	226.81	226.81
0.80	188.93	190.47	192.15	193.98	195.99	198.21	200.67	200.67
0.90	172.55	173.51	174.55	175.68	176.91	178.26	179.74	179.74
1.00	158.30	158.85	159.44	160.07	160.76	161.50	162.31	162.31
1.10	146.50	146.76	147.04	147.33	147.65	148.00	148.37	148.37
1.20	136.00	136.05	136.10	136.15	136.20	136.26	136.33	136.33
1.30	126.79	126.68	126.57	126.44	126.31	126.17	126.02	126.02

DDM		CV Year ROE						
CV Growth of EPS	159.57	9.00%	9.50%	10.00%	10.43%	11.00%	11.50%	12.00%
2.00%	151.27	152.98	154.52	155.73	157.18	158.34	159.40	159.40
2.50%	150.84	153.14	155.20	156.82	158.77	160.32	161.75	161.75
3.00%	150.35	153.32	155.99	158.09	160.61	162.62	164.46	164.46
3.50%	149.77	153.53	156.92	159.57	162.77	165.31	167.64	167.64
4.00%	149.08	153.78	158.02	161.33	165.32	168.50	171.41	171.41
4.50%	148.26	154.09	159.34	163.45	168.41	172.35	175.96	175.96
5.00%	147.24	154.46	160.97	166.06	172.20	177.08	181.55	181.55

DDM		Cost of Equity						
Lean Growth Rate	159.57	8.50%	8.75%	9.00%	9.36%	9.50%	9.75%	10.00%
3.00%	174.68	165.09	156.41	145.25	141.29	134.68	128.59	128.59
3.50%	180.43	170.46	161.42	149.82	145.70	138.82	132.49	132.49
4.00%	186.44	176.06	166.66	154.59	150.30	143.15	136.57	136.57
4.50%	192.72	181.91	172.13	159.57	155.11	147.67	140.83	140.83
5.00%	199.27	188.02	177.84	164.77	160.13	152.39	145.27	145.27
5.50%	206.10	194.40	183.80	170.20	165.37	157.31	149.91	149.91
6.00%	213.24	201.05	190.02	175.86	170.84	162.46	154.75	154.75

J.P. Morgan
Revenue Decomposition

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Non-interest Revenue													
Investment banking fees	13,216	6,686	6,519	6,438	6,502	6,632	6,765	6,900	7,038	7,179	7,322	7,469	7,618
% growth	39.32%	-49.41%	-2.50%	-1.25%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Principal transactions	16,304	19,912	24,460	28,129	30,942	32,489	34,113	35,819	36,535	37,266	38,012	38,772	39,547
% growth	-9.53%	22.13%	22.84%	15.00%	10.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Lending and deposit related fees	7,032	7,098	7,413	7,784	8,056	8,338	8,546	8,760	8,935	9,114	9,296	9,482	9,672
% growth	8.00%	0.94%	4.44%	5.00%	3.50%	3.50%	2.50%	2.50%	2.00%	2.00%	2.00%	2.00%	2.00%
Asset management fees	14,405	14,096	15,220	15,829	16,462	17,038	17,549	17,988	18,348	18,715	19,089	19,471	19,860
% growth	19.72%	-2.15%	7.97%	4.00%	4.00%	3.50%	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%	2.00%
Commissions and other fees	6,624	6,581	6,836	7,109	7,394	7,653	7,882	8,079	8,241	8,406	8,574	8,745	8,920
% growth	7.79%	-0.65%	3.87%	4.00%	4.00%	3.50%	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%	2.00%
Investment securities gains (losses)	(345)	(2,380)	(3,180)	-	-	-	-	-	-	-	-	-	-
% growth	-143.02%	589.86%	33.61%	-100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mortgage fees & related income	2,170	1,250	1,176	1,117	1,106	1,139	1,173	1,206	1,236	1,267	1,292	1,318	1,338
% growth	-29.80%	-42.40%	-5.92%	-5.00%	-1.00%	3.00%	3.00%	2.75%	2.50%	2.50%	2.00%	2.00%	1.50%
Card income	5,102	4,420	4,784	5,119	5,400	5,670	5,926	6,192	6,440	6,633	6,799	6,935	7,074
% growth	15.04%	-13.37%	8.24%	7.00%	5.50%	5.00%	4.50%	4.50%	4.00%	3.00%	2.50%	2.00%	2.00%
Other income	4,830	4,322	5,609	5,329	5,861	6,301	6,616	6,848	7,019	7,159	7,302	7,448	7,597
% growth	8.37%	-10.52%	29.78%	-5.00%	10.00%	7.50%	5.00%	3.50%	2.50%	2.00%	2.00%	2.00%	2.00%
Total	69,338	61,985	68,837	76,853	81,723	85,260	88,571	91,792	93,792	95,738	97,686	99,640	101,626
% growth	6.71%	-10.60%	11.05%	11.64%	6.34%	4.33%	3.88%	3.64%	2.18%	2.08%	2.03%	2.00%	1.99%
Interest income													
Interest income	57,864	92,807	170,588	117,578	115,642	120,845	122,337	123,718	120,667	126,097	122,359	127,865	133,619
Projected interest rate on IEA				8.50%	8.00%	8.00%	7.75%	7.50%	7.00%	7.00%	6.50%	6.50%	6.50%
Interest expense	5,553	26,097	81,321	52,288	40,525	32,938	29,503	30,831	32,218	28,057	29,319	30,638	32,017
Projected interest rate on IBL				3.00%	2.25%	1.75%	1.50%	1.50%	1.50%	1.25%	1.25%	1.25%	1.25%
Net interest income	52,311	66,710	89,267	65,290	75,116	87,908	92,834	92,888	88,449	98,040	93,040	97,227	101,602

J.P. Morgan
Income Statement

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue													
Investment banking fees	13,216	6,686	6,519	6,438	6,502	6,632	6,765	6,900	7,038	7,179	7,322	7,469	7,618
Principal transactions	16,304	19,912	24,460	28,129	30,942	32,489	34,113	35,819	36,535	37,266	38,012	38,772	39,547
Lending- & deposit-related fees	7,032	7,098	7,413	7,784	8,056	8,338	8,546	8,760	8,935	9,114	9,296	9,482	9,672
Asset management fees	14,405	14,096	15,220	15,829	16,462	17,038	17,549	17,988	18,348	18,715	19,089	19,471	19,860
Commissions and other fees	6,624	6,581	6,836	7,109	7,394	7,653	7,882	8,079	8,241	8,406	8,574	8,745	8,920
Investment securities gains (losses)	(345)	(2,380)	(3,180)	-	-	-	-	-	-	-	-	-	-
Mortgage fees & related income	2,170	1,250	1,176	1,117	1,106	1,139	1,173	1,206	1,236	1,267	1,292	1,318	1,338
Card income	5,102	4,420	4,784	5,119	5,400	5,670	5,926	6,192	6,440	6,633	6,799	6,935	7,074
Other income	4,830	4,322	5,609	5,329	5,861	6,301	6,616	6,848	7,019	7,159	7,302	7,448	7,597
Noninterest revenue	69,338	61,985	68,837	76,853	81,723	85,260	88,571	91,792	93,792	95,738	97,686	99,640	101,626
Interest income	57,864	92,807	170,588	117,578	115,642	120,845	122,337	123,718	120,667	126,097	122,359	127,865	133,619
Interest expense	5,553	26,097	81,321	52,288	40,525	32,938	29,503	30,831	32,218	28,057	29,319	30,638	32,017
Net interest income	52,311	66,710	89,267	65,290	75,116	87,908	92,834	92,888	88,449	98,040	93,040	97,227	101,602
Total net revenue	121,649	128,695	158,104	142,144	156,840	173,168	181,405	184,680	182,241	193,778	190,726	196,866	203,228
Provision for credit losses	(9,256)	6,389	9,320	7,452	7,787	8,137	8,504	8,886	9,286	9,704	10,141	10,597	11,074
Noninterest expense													
Compensation expense	38,567	41,636	46,465	46,518	49,466	51,606	53,610	55,560	56,770	57,948	59,127	60,310	61,512
Occupancy expense	4,516	4,696	4,590	5,039	5,560	6,138	6,430	6,547	6,460	6,869	6,761	6,979	7,204
Technology, communications & equipment expense	6,561	6,883	7,468	7,235	7,983	8,814	9,234	9,400	9,276	9,864	9,708	10,021	10,345
Depreciation Expense	3,380	2,475	1,778	2,345	2,486	2,701	3,032	3,388	3,744	4,078	4,405	4,726	5,054
Professional & outside services expense	9,814	10,174	1,035	8,838	9,752	10,767	11,279	11,483	11,331	12,048	11,858	12,240	12,636
Marketing expense	3,036	3,911	4,591	3,868	4,268	4,712	4,936	5,025	4,959	5,273	5,190	5,357	5,530
Other expense	5,469	6,365	12,045	7,513	8,290	9,153	9,589	9,762	9,633	10,243	10,081	10,406	10,742
Total noninterest expense	71,343	76,140	87,172	81,356	87,804	93,892	98,110	101,164	102,173	106,322	107,131	110,038	113,023
Income (loss) before income tax expense (benefit)	59,562	46,166	61,612	53,336	61,249	71,138	74,792	74,629	70,782	77,752	73,454	76,231	79,131
Income tax expense (benefit)	11,228	8,490	12,060	9,894	11,362	13,197	13,875	13,845	13,131	14,424	13,627	14,142	14,680
Net income (loss)	48,334	37,676	49,552	43,442	49,886	57,941	60,917	60,785	57,651	63,328	59,828	62,089	64,452
Less: preferred stock dividends	1,600	1,595	1,501	1,501	1,501	1,501	1,501	1,501	1,501	1,501	1,501	1,501	1,501
Less: dividends & undistributed earnings allocated to participating securities	231	189	-	-	-	-	-	-	-	-	-	-	-
TARP - Accelerated amortization from redemption of preferred stock issued to t	-	-	291	-	-	-	-	-	-	-	-	-	-
Net income (loss) applicable to common stockholders	46,503	35,892	47,760	41,941	48,385	56,440	59,416	59,284	56,150	61,827	58,327	60,588	62,951
Weighted average shares outstanding - basic	3,022	2,966	2,939	2,890	2,850	2,817	2,790	2,766	2,743	2,722	2,701	2,680	2,660
Net income (loss) per common share - basic	15.39	12.10	16.25	14.51	16.98	20.04	21.29	21.44	20.47	22.72	21.59	22.61	23.67
Common Stock Dividend Paid	3.80	4.00	4.05	4.60	5.00	5.40	5.80	6.40	7.00	7.60	8.20	8.80	9.40

J.P. Morgan
Balance Sheet

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Assets													
Cash & due from banks	26,438	27,697	29,066	29,927	30,037	56,879	90,133	122,374	154,673	184,509	217,919	244,428	272,309
Deposits with banks	714,396	539,537	595,085	612,938	631,326	650,265	669,773	689,867	710,563	731,879	753,836	776,451	799,744
Federal funds sold & securities purchased under resale agreements	261,698	315,592	276,152	298,672	312,112	326,157	340,834	356,172	372,199	388,948	406,451	424,741	443,855
Securities borrowed	206,071	185,369	200,436	208,453	216,792	225,463	234,482	243,861	253,615	263,760	274,311	285,283	296,694
Trading assets	433,575	453,799	540,607	562,231	584,721	608,109	632,434	657,731	684,040	711,402	739,858	769,452	800,230
Available-for-sale securities	308,525	205,857	201,704	274,148	286,484	299,376	312,848	326,926	341,638	357,012	373,077	389,866	407,410
Held-to-maturity securities	363,707	425,305	369,848	323,124	337,665	352,860	368,738	385,331	402,671	420,792	439,727	459,515	480,193
Investment securities, net of allowance for credit losses	672,232	631,162	571,552	597,272	624,149	652,236	681,586	712,258	744,309	777,803	812,804	849,381	887,603
Loans	1,077,714	1,135,647	1,323,706	1,383,273	1,445,520	1,510,568	1,578,544	1,649,579	1,723,810	1,801,381	1,882,443	1,967,153	2,055,675
Allowance for loan losses	(16,386)	(19,726)	(22,420)	(22,829)	(23,857)	(24,930)	(26,052)	(27,224)	(28,449)	(29,730)	(31,068)	(32,466)	(33,927)
Loans, net of allowance for loan losses	1,061,328	1,115,921	1,301,286	1,360,443	1,421,663	1,485,638	1,552,492	1,622,354	1,695,360	1,771,651	1,851,376	1,934,687	2,021,748
Accrued interest & accounts receivable	102,570	125,189	107,286	101,938	100,259	104,771	106,064	107,261	104,616	109,323	106,083	110,856	115,845
Premises & equipment	27,070	27,734	30,157	31,971	34,731	38,981	43,564	48,137	52,432	56,641	60,773	64,989	69,306
Goodwill, mortgage servicing rights ("MSRs") & other intangible assets	56,691	60,859	64,381	72,220	75,470	78,866	82,415	86,124	89,999	94,049	98,282	102,704	107,326
Other assets	181,498	182,884	159,308	165,227	170,744	178,428	186,457	194,848	203,616	212,778	222,353	232,359	242,815
Total assets	3,743,567	3,665,743	3,875,393	4,041,292	4,202,004	4,405,794	4,620,234	4,840,986	5,065,423	5,302,745	5,544,045	5,795,333	6,057,477
Liabilities													
Deposits	2,462,303	2,340,179	2,400,688	2,489,891	2,573,026	2,688,812	2,809,808	2,936,250	3,068,381	3,206,458	3,350,749	3,501,532	3,659,101
Federal funds purchased & securities loaned or sold under repurchase agreements	194,340	202,613	216,535	216,972	226,736	236,939	247,601	258,743	270,387	282,554	295,269	308,556	322,441
Short-term borrowings	53,594	44,027	44,712	57,524	60,113	62,818	65,645	68,599	71,685	74,911	78,282	81,805	85,486
Trading liabilities	164,693	177,976	180,428	195,002	202,802	210,914	219,350	228,124	237,249	246,739	256,609	266,873	277,548
Accounts payable & other liabilities	262,755	300,141	290,307	323,124	337,664	352,859	368,738	385,331	402,671	420,791	439,727	459,515	480,193
Beneficial interests issued by consolidated variable interest entities ("VIEs")	10,750	12,610	23,020	23,020	23,020	23,020	23,020	23,020	23,020	23,020	23,020	23,020	23,020
Long-term debt	301,005	295,865	391,825	389,014	406,519	424,813	443,929	463,906	484,782	506,597	529,394	553,217	578,111
Total liabilities	3,449,440	3,373,411	3,547,515	3,694,546	3,829,880	4,000,174	4,178,092	4,363,973	4,558,175	4,761,071	4,973,050	5,194,518	5,425,901
Shareholders' Equity													
Preferred stock	34,838	27,404	27,404	27,404	27,404	27,404	27,404	27,404	27,404	27,404	27,404	27,404	27,404
Common stock	92,520	93,149	94,233	94,678	95,122	95,567	96,012	96,457	96,901	97,346	97,657	97,657	97,657
Retained earnings	272,268	296,456	332,901	361,324	395,258	436,309	479,387	520,812	557,602	598,584	634,594	671,414	709,174
Accumulated other comprehensive income (loss)	(84)	(17,341)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)	(10,443)
Shares held in restricted stock units ("RSU") trust	-	-	-	-	-	-	-	-	-	-	-	-	-
Treasury stock	(105,415)	(107,336)	(116,217)	(126,217)	(135,217)	(143,217)	(150,217)	(157,217)	(164,217)	(171,217)	(178,217)	(185,217)	(192,217)
Total stockholders' equity	294,127	292,332	327,878	346,746	372,125	405,620	442,143	477,013	507,247	541,674	570,995	600,815	631,576
Total liabilities and stockholders' equity	3,743,567	3,665,743	3,875,393	4,041,292	4,202,004	4,405,794	4,620,234	4,840,986	5,065,423	5,302,745	5,544,045	5,795,333	6,057,477
Capital Requirement	7.86%	7.97%	8.46%	8.58%	8.86%	9.21%	9.57%	9.85%	10.01%	10.21%	10.30%	10.37%	10.43%

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Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2019	2020	2021	2022	2023
Operating activities					
Net income (loss)	36,431	29,131	48,334	37,676	49,552
Adjustments to reconcile net income to net cash provided by operating activities					
Provision for credit losses	5,585	17,480	(9,256)	6,389	9,320
Depreciation & amortization	8,368	8,614	7,932	7,051	7,512
Deferred tax expense (benefit)	949	(3,981)	3,748	(2,738)	(4,534)
Bargain purchase gain associated with the First Republic acquisition	-	-	-	-	(2,775)
Other	1,996	1,649	3,274	5,174	4,301
Originations & purchases of loans held-for-sale	(70,980)	(166,504)	(347,864)	(149,167)	(115,245)
Proceeds from sales, securitizations & paydowns of loans held-for-sale	79,182	175,490	336,413	167,709	-
Net change in:					
Trading assets	(652)	(148,749)	85,710	(31,449)	(74,091)
Securities borrowed	(27,631)	(20,734)	(45,635)	20,203	(14,902)
Accrued interest & accounts receivable	(78)	(18,012)	(12,401)	(22,970)	19,928
Other assets	(17,949)	(42,434)	(11,745)	(2,882)	32,970
Trading liabilities	(14,516)	77,198	(23,190)	11,170	5,315
Accounts payable & other liabilities	(352)	7,827	43,162	58,614	(25,388)
Other operating adjustments	5,693	3,115	(398)	2,339	4,581
Net cash flows from operating activities	6,046	(79,910)	78,084	107,119	12,974
Investing activities					
Net change in:					
Federal funds sold & securities purchased under resale agreements	72,396	(47,115)	34,473	(54,278)	39,740
Held-to-maturity securities					
Proceeds from paydowns and maturities	3,423	21,360	50,897	48,626	53,056
Purchases	(13,427)	(12,400)	(111,756)	(33,676)	(4,141)
Available-for-sale securities					
Proceeds from paydown and maturities	52,200	57,675	50,075	39,159	53,744
Proceeds from sales	70,181	149,758	162,748	84,616	108,434
Purchases of available-for-sale securities	(242,149)	(397,145)	(248,785)	(126,258)	(115,499)
Proceeds from sales & securitizations of loans held-for-investment	62,095	23,559	35,845	44,892	47,312
Other changes in loans, net	(53,697)	(50,263)	(91,797)	(128,968)	(88,343)
Net cash used in First Republic Acquisition	-	-	-	-	(9,920)
All other investing activities, net	(5,035)	(7,341)	(11,044)	(11,932)	(16,740)
Net cash flows from investing activities	(54,013)	(261,912)	(129,344)	(137,819)	67,643
Financing activities					
Net change in:					
Deposits	101,002	602,765	293,764	(136,895)	(32,196)
Federal funds purchased & securities loaned or sold under repurchase agreements	1,347	31,528	(20,799)	8,455	13,801
Short-term borrowings	(28,561)	4,438	7,773	(8,984)	(1,934)
Beneficial interests issued by consolidated VIEs	4,289	1,347	(4,254)	2,205	9,029
Proceeds from long-term borrowings	61,085	78,686	82,409	78,442	75,417
Payments of long-term borrowings	(69,610)	(105,055)	(54,932)	(45,556)	(64,880)
Proceeds from issuance of preferred stock	5,000	4,500	7,350	-	-
Redemption of preferred stock	(4,075)	(1,430)	(2,575)	(7,434)	-
Treasury stock purchased	(24,001)	(6,517)	(18,408)	(3,162)	(9,824)
Dividends paid	(12,343)	(12,690)	(12,858)	(13,562)	(13,463)
All other financing activities, net	(1,146)	(927)	(1,477)	234	(1,521)
Net cash flows from financing activities	32,987	596,645	275,993	(126,257)	(25,571)
Effect of exchange rate changes on cash & due from banks & deposits with banks	(182)	9,155	(11,508)	(16,643)	1,871
Net increase (decrease) in cash & due from banks & deposits with banks	(15,162)	263,978	213,225	(173,600)	56,917
Cash & due from banks & deposits with banks at the beginning of the period	278,793	263,631	527,609	740,834	567,234
Cash & due from banks & deposits with banks at the end of the period	263,631	527,609	740,834	567,234	624,151
Cash interest paid	29,918	13,077	5,142	23,143	77,114
Cash income taxes paid, net	5,624	7,661	18,737	4,355	9,908

J.P. Morgan

Forecasted Cash Flow Statement

(In USD millions, except per share data)

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Operating Activities:										
Net Income	41,941	48,385	56,440	59,416	59,284	56,150	61,827	58,327	60,588	62,951
Adjustments for Non-Cash Operating Expenses:										
Add: Depreciation and Amortization	2,345	2,486	2,701	3,032	3,388	3,744	4,078	4,405	4,726	5,054
Changes in Working Capital Accounts										
Increase in Trading assets	(21,624)	(22,489)	(23,389)	(24,324)	(25,297)	(26,309)	(27,362)	(28,456)	(29,594)	(30,778)
Decrease (increase) in Accrued Int. & AR	5,348	1,679	(4,512)	(1,293)	(1,197)	2,646	(4,708)	3,241	(4,774)	(4,989)
Decrease (increase) in Other assets	(5,919)	(5,517)	(7,683)	(8,029)	(8,391)	(8,768)	(9,163)	(9,575)	(10,006)	(10,456)
Decrease (increase) in Trading liabilities	14,574	7,800	8,112	8,437	8,774	9,125	9,490	9,870	10,264	10,675
Increase in AP and other liabilities	32,817	14,541	15,195	15,879	16,593	17,340	18,120	18,936	19,788	20,678
Cash Provided by Operating Activities	69,481	46,885	46,864	53,116	53,154	53,927	52,283	56,746	50,993	53,135
Investing Activities:										
Capital Expenditures	(4,159)	(5,247)	(6,951)	(7,614)	(7,961)	(8,039)	(8,286)	(8,537)	(8,943)	(9,371)
Deposits with banks	(17,853)	(18,388)	(18,940)	(19,508)	(20,093)	(20,696)	(21,317)	(21,956)	(22,615)	(23,294)
Federal funds sold and securities purchased	(22,520)	(13,440)	(14,045)	(14,677)	(15,338)	(16,028)	(16,749)	(17,503)	(18,290)	(19,113)
Securities borrowed	(8,017)	(8,338)	(8,672)	(9,019)	(9,379)	(9,754)	(10,145)	(10,550)	(10,972)	(11,411)
Investment securities, net	(25,720)	(26,877)	(28,087)	(29,351)	(30,671)	(32,052)	(33,494)	(35,001)	(36,576)	(38,222)
Goodwill, MSRs, and other intangible assets	(7,839)	(3,250)	(3,396)	(3,549)	(3,709)	(3,876)	(4,050)	(4,232)	(4,423)	(4,622)
Net loans	(59,157)	(61,220)	(63,975)	(66,854)	(69,862)	(73,006)	(76,291)	(79,724)	(83,312)	(87,061)
Cash Provided by Investing Activities	(145,265)	(136,761)	(144,065)	(150,571)	(157,013)	(163,450)	(170,332)	(177,504)	(185,132)	(193,094)
Financing Activities:										
Deposits	89,203	83,135	115,786	120,997	126,441	132,131	138,077	144,291	150,784	157,569
Federal funds purchased & securities loaned or sold	437	9,764	10,203	10,662	11,142	11,643	12,167	12,715	13,287	13,885
Short-term borrowings	12,812	2,589	2,705	2,827	2,954	3,087	3,226	3,371	3,523	3,681
Long-term debt	(2,811)	17,506	18,293	19,117	19,977	20,876	21,815	22,797	23,823	24,895
Dividends paid	(13,518)	(14,451)	(15,390)	(16,338)	(17,858)	(19,360)	(20,845)	(22,317)	(23,769)	(25,190)
New issues	445	445	445	445	445	445	445	311	-	-
Repurchases	(10,000)	(9,000)	(8,000)	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)
Cash Provided by Financing Activities	76,568	89,986	124,043	130,709	136,101	141,822	147,885	154,168	160,648	167,840
Changes in Cash	861	111	26,842	33,254	32,241	32,299	29,836	33,410	26,509	27,881
Opening Cash Balance	29,066	29,927	30,037	56,879	90,133	122,374	154,673	184,509	217,919	244,428
Closing Cash Balance	29,927	30,037	56,879	90,133	122,374	154,673	184,509	217,919	244,428	272,309

J.P. Morgan
Common Size Income Statement

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue													
Investment banking fees	10.86%	5.20%	4.12%	4.53%	4.15%	3.83%	3.73%	3.74%	3.86%	3.70%	3.84%	3.79%	3.75%
Principal transactions	13.40%	15.47%	15.47%	19.79%	19.73%	18.76%	18.81%	19.40%	20.05%	19.23%	19.93%	19.69%	19.46%
Lending- & deposit-related fees	5.78%	5.52%	4.69%	5.48%	5.14%	4.82%	4.71%	4.74%	4.90%	4.70%	4.87%	4.82%	4.76%
Asset management fees	11.84%	10.95%	9.63%	11.14%	10.50%	9.84%	9.67%	9.74%	10.07%	9.66%	10.01%	9.89%	9.77%
Commissions and other fees	5.45%	5.11%	4.32%	5.00%	4.71%	4.42%	4.35%	4.37%	4.52%	4.34%	4.50%	4.44%	4.39%
Investment securities gains (losses)	-0.28%	-1.85%	-2.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mortgage fees & related income	1.78%	0.97%	0.74%	0.79%	0.71%	0.66%	0.65%	0.65%	0.68%	0.65%	0.68%	0.67%	0.66%
Card income	4.19%	3.43%	3.03%	3.60%	3.44%	3.27%	3.27%	3.35%	3.53%	3.42%	3.56%	3.52%	3.48%
Other income	3.97%	3.36%	3.55%	3.75%	3.74%	3.64%	3.65%	3.71%	3.85%	3.69%	3.83%	3.78%	3.74%
Noninterest revenue	57.00%	48.16%	43.54%	54.07%	52.11%	49.24%	48.82%	49.70%	51.47%	49.41%	51.22%	50.61%	50.01%
Interest income	47.57%	72.11%	107.90%	82.72%	73.73%	69.79%	67.44%	66.99%	66.21%	65.07%	64.15%	64.95%	65.75%
Interest expense	-4.56%	20.28%	51.44%	36.79%	25.84%	19.02%	16.26%	16.69%	17.68%	14.48%	15.37%	15.56%	15.75%
Net interest income	43.00%	51.84%	56.46%	45.93%	47.89%	50.76%	51.18%	50.30%	48.53%	50.59%	48.78%	49.39%	49.99%
Total net revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Provision for credit losses	-7.61%	4.96%	5.89%	5.24%	4.96%	4.70%	4.69%	4.81%	5.10%	5.01%	5.32%	5.38%	5.45%
Noninterest expense													
Compensation expense	31.70%	32.35%	29.39%	32.73%	31.54%	29.80%	29.55%	30.08%	31.15%	29.90%	31.00%	30.63%	30.27%
Occupancy expense	3.71%	3.65%	2.90%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%
Technology, communications & equipment expense	5.39%	5.35%	4.72%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%
Depreciation Expense	2.78%	1.92%	1.12%	1.65%	1.59%	1.56%	1.67%	1.83%	2.05%	2.10%	2.31%	2.40%	2.49%
Professional & outside services expense	8.07%	7.91%	0.65%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%
Marketing expense	2.50%	3.04%	2.90%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%
Other expense	4.50%	4.95%	7.62%	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%
Total noninterest expense	58.65%	59.16%	55.14%	57.23%	55.98%	54.22%	54.08%	54.78%	56.06%	54.87%	56.17%	55.89%	55.61%
Income (loss) before income tax expense (benefit)	48.96%	35.87%	38.97%	37.52%	39.05%	41.08%	41.23%	40.41%	38.84%	40.12%	38.51%	38.72%	38.94%
Income tax expense (benefit)	9.23%	6.60%	7.63%	6.96%	7.24%	7.62%	7.65%	7.50%	7.21%	7.44%	7.14%	7.18%	7.22%
Net income (loss)	39.73%	29.28%	31.34%	30.56%	31.81%	33.46%	33.58%	32.91%	31.63%	32.68%	31.37%	31.54%	31.71%
Less: preferred stock dividends	1.32%	1.24%	0.95%	1.06%	0.96%	0.87%	0.83%	0.81%	0.82%	0.77%	0.79%	0.76%	0.74%
Less: dividends & undistributed earnings allocated to participating securities	0.19%	0.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TARP - Accelerated amortization from redemption of preferred stock issued to t	0.00%	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income (loss) applicable to common stockholders	38.23%	27.89%	30.21%	29.51%	30.85%	32.59%	32.75%	32.10%	30.81%	31.91%	30.58%	30.78%	30.98%

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Value Driver Estimation

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Return on Equity (ROE):													
Net Income	46,503	35,892	47,760	41,941	48,385	56,440	59,416	59,284	56,150	61,827	58,327	60,588	62,951
Beg. TSE	279,354	294,127	292,332	327,878	346,746	372,125	405,620	442,143	477,013	507,247	541,674	570,995	600,815
ROE	16.65%	12.20%	16.34%	12.79%	13.95%	15.17%	14.65%	13.41%	11.77%	12.19%	10.77%	10.61%	10.48%
Free Cash Flow to Equity (FCFE):													
Net Income	46,503	35,892	47,760	41,941	48,385	56,440	59,416	59,284	56,150	61,827	58,327	60,588	62,951
Change in Total Assets	(357,496)	77,824	(209,650)	(165,899)	(160,712)	(203,790)	(214,440)	(220,752)	(224,437)	(237,322)	(241,300)	(251,288)	(262,144)
Change in Total Liabilities	342,723	(76,029)	174,104	147,031	135,333	170,295	177,917	185,881	194,202	202,896	211,979	221,468	231,383
FCFE	31,730	37,687	12,214	23,073	23,006	22,945	22,893	24,414	25,915	27,401	29,005	30,769	32,190
Economic Profit (EP):													
Beginning TSE	279,354	294,127	292,332	327,878	346,746	372,125	405,620	442,143	477,013	507,247	541,674	570,995	600,815
ROE	16.65%	12.20%	16.34%	12.79%	13.95%	15.17%	14.65%	13.41%	11.77%	12.19%	10.77%	10.61%	10.48%
Cost of Equity (Re)	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%
Equity EP	20,355.47	8,361.71	20,397.72	11,251.25	15,929.92	21,609.42	21,450.20	17,899.22	11,501.53	14,348.86	7,626.10	7,143.15	6,714.22

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Cost of Equity Estimation

Cost of Equity:

Risk-Free Rate	4.35%
Beta	1.00
Equity Risk Premium	5.00%
Cost of Equity	9.36%

ASSUMPTIONS:

*10-year US Treasury
2-year weekly Raw BETA
Henry Fund ERP estimate*

Estimated WACC

9.36%

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Relative Valuation Models

Ticker	Company	Price	EPS	EPS	P/E 24	P/E 25	BV Equity	Tangible BV Equity	P/B	Tangible
			2024E	2025E						P/B
MS	Morgan Stanley	\$92.71	\$6.37	\$7.28	14.55	12.73	55.50	40.89	1.67	2.27
GS	Goldman Sachs	\$410.15	\$33.90	\$39.14	12.10	10.48	326.87	304.94	1.25	1.35
WFC	Wells Fargo & Co	\$57.35	\$4.78	\$5.37	12.00	10.68	46.21	39.21	1.24	1.46
C	Citigroup	\$62.84	\$5.73	\$7.08	10.97	8.88	98.71	86.19	0.64	0.73
BAC	Bank of America	\$37.30	\$3.14	\$3.41	11.88	10.94	33.34	24.55	1.12	1.52
Average					12.30	10.74			1.18	1.46

JPM	J.P. Morgan	\$195.00	14.51	16.98	13.4	11.5	104.45	85.03	1.87	2.29
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Implied Relative Value:

P/E (EPS24)	\$ 178.48	\$ 124.12
P/E (EPS25)	\$ 182.37	
P/B	\$ 123.70	
P/Tangible BV	\$ 124.54	

J.P. Morgan
Key Management Ratios

Fiscal Years Ending Dec. 31	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Liquidity Ratios:													
Cash Ratio (Cash / Total Deposits)	1.07%	1.18%	1.21%	1.20%	1.17%	2.12%	3.21%	4.17%	5.04%	5.75%	6.50%	6.98%	7.44%
Average AI Receivables (Average AI / Net Loans)	9.10%	10.20%	8.93%	7.69%	7.11%	6.90%	6.79%	6.57%	6.25%	6.04%	5.82%	5.61%	5.61%
Regulatory Capital Ratio:													
Equity Check (TSE / Total Capital)	7.86%	7.97%	8.46%	8.58%	8.86%	9.21%	9.57%	9.85%	10.01%	10.21%	10.30%	10.37%	10.43%
Asset-Management Ratios:													
Loan to Asset Ratio (Total Loans / TA)	28.79%	30.98%	34.16%	34.23%	34.40%	34.29%	34.17%	34.08%	34.03%	33.97%	33.95%	33.94%	33.94%
Total Asset Turnover (Tot. Rev. / TA)	3.25%	3.51%	4.08%	3.52%	3.73%	3.93%	3.93%	3.81%	3.60%	3.65%	3.44%	3.40%	3.35%
Debt to Equity	117.71%	119.54%	132.93%	125.08%	124.70%	119.55%	114.61%	111.01%	109.09%	106.76%	105.83%	105.11%	104.49%
Profitability Ratios:													
Return on Equity (NI / Beg TSE)	16.65%	12.20%	16.34%	12.79%	13.95%	15.17%	14.65%	13.41%	11.77%	12.19%	10.77%	10.61%	10.48%
Return on Assets (NI / Beg TA)	1.37%	0.96%	1.30%	1.08%	1.20%	1.34%	1.35%	1.28%	1.16%	1.22%	1.10%	1.09%	1.09%
Payout Policy Ratios:													
Dividend Payout Ratio (Dividend / EPS)	24.69%	33.06%	24.92%	31.70%	29.45%	26.95%	27.24%	29.86%	34.19%	33.45%	37.97%	38.92%	39.72%
Total Payout Ratio ((Divs. + Repurchases) / NI)	65.18%	42.85%	46.66%	59.12%	51.15%	43.78%	41.55%	44.20%	49.33%	47.20%	52.55%	52.95%	53.22%

J.P. Morgan*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Number of Options Outstanding (shares):	23
Average Time to Maturity (years):	<u>7.70</u>
Expected Annual Number of Options Exercised:	3

Current Average Strike Price:	\$ 152.19
Cost of Equity:	9.36%
Current Stock Price:	\$195.00

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Increase in Shares Outstanding:	3	3	3	3	3	3	3	2	0	0
Average Strike Price:	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19	\$ 152.19
Increase in Common Stock Account:	445	445	445	445	445	445	445	311	-	-
Share Repurchases (\$)	10,000	9,000	8,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Expected Price of Repurchased Shares:	\$ 195.00	\$ 208.28	\$ 222.46	\$ 237.61	\$ 253.79	\$ 271.08	\$ 289.54	\$ 309.26	\$ 330.32	\$ 352.81
Number of Shares Repurchased:	51	43	36	29	28	26	24	23	21	20
Shares Outstanding (beginning of the year)	2,939	2,890	2,850	2,817	2,790	2,766	2,743	2,722	2,701	2,680
Plus: Shares Issued Through ESOP	3	3	3	3	3	3	3	2	0	0
Less: Shares Repurchased in Treasury	51	43	36	29	28	26	24	23	21	20
Shares Outstanding (end of the year)	2,890	2,850	2,817	2,790	2,766	2,743	2,722	2,701	2,680	2,660

J.P. Morgan*Valuation of Options Granted under ESOP*

Current Stock Price	\$195.00
Risk Free Rate	4.35%
Current Dividend Yield	2.55%
Annualized St. Dev. of Stock Returns	20.44%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	23	152.19	7.70	\$ 62.16	\$ 1,399
Total	23	\$ 152.19	7.70	\$ 91.11	\$ 1,399