Good morning, ladies and gentlemen. Welcome to JPMorgan Chase's Fourth Quarter and Full Year 2018 Earnings Call. This call is being recorded. Your line will be muted for the duration of the call. We will now go live to the presentation. Please stand by.

At this time, I would like to turn the call over to JPMorgan Chase's Chairman and CEO, Jamie Dimon; and Chief Financial Officer, Marianne Lake. Ms. Lake, please go ahead.

Marianne Lake

Thank you, operator. Good morning, everyone. I'm going to take you through the earnings presentation which is available on our website. Please refer to disclaimer at the back of the presentation.

Starting on Page 1, the firm reported fourth quarter net income of $7.1 billion and EPS of $1.98 on revenue of nearly $27 billion with a return on tangible common equity of 14%. Market impacts aside, underlying business drivers remain solid, increasing core loans and deposit growth, consumer sentiment and spending in a robust holiday season, faster market activity and the credit performance continuing to be very strong across businesses.

For the full year 2018, the firm reported revenue of $111.5 billion and net income was $32.5 billion, both clear records even adjusting for the impacts of tax reform. And so, we're entering 2019 with good momentum across all businesses.

Turning to Page 2 and some more detail about our fourth quarter results. Revenue of $26.8 billion was up $1.1 billion or 4% year-on-year, driven by net interest income. NII was up $1.2 billion or 9% on higher rates and on loan and deposit growth.

Non-interest revenue was down slightly, with lower market levels impacting Asset Wealth Management fees and Private Equity losses being offset by higher Card fees and Auto lease growth in CCB.

Expense of $15.7 billion was up 6% year-on-year. The increase is related to investments we're making in technology, marketing, real estate and front office, as well as revenue-related costs including growth in Auto. This was partially offset by a reduction in FDIC fees. As we had hoped, the incremental surcharge was eliminated effective the end of the third quarter and this is a benefit of a little over $200 million for the quarter across our businesses.

Credit trends remained favorable across both Consumer and Wholesale. Credit costs of $1.5 billion were up $240 million year-on-year, driven by changes in reserves. In Consumer, we built reserves of $150 million in Cards on loan growth.

In Wholesale, over the last several quarters, we have seen net reserve releases and recoveries. However, this quarter, we had about $200 million of credit costs. Again largely reserve builds on select C&I client downgrades driven by a handful of names across multiple sectors.

While we are constantly looking at the granular level, these downgrades are idiosyncratic and do not reflect signs of deterioration in our portfolio. The outlook for credit as we see it remains positive.

Shifting for the full year results on Page 3, we have posted net income for the year of $32.5 billion, a return on tangible common equity of 17% and EPS of $9 a share. Net income was a record for the firm, as well as to each of our businesses even exceeding tax reform.

Revenue of $111.5 billion is also record and was up nearly $7 billion or 7% year-on-year, $4.3 billion of which was higher net interest income on higher rates with growth and Card margin expansion being offset by lower markets NII.

Non-interest revenues was up $2.5 billion or 5%, driven by CIB Markets and growth in Consumer being offset by Private Equity losses and the impact of spread widening on FCA. At the end of the year, the adjusted expense was $63.3 billion, up 6%, which brings our overhead ratio to 57% for the year even as we continue to make very significant investments across the franchise. And although we are showing modest positive operating leverage on a managed basis, remember our revenues were impacted by lower growth in Cards given tax reform.

Adjusted for this or looking on a GAAP basis, we delivered nearly 200 basis points of positive operating leverage for the year and well over 100 basis points for the fourth quarter.

On Credit, the environment remained favorable throughout 2018. Credit costs were $4.9 billion, down 8% driven by lower net reserve build in Consumer as well as the impact in 2017 of student loan sales.

Moving on to Page 4 on balance sheet and capital. We ended the quarter with a CET1 ratio of 12% flat to last quarter. Risk-weighted assets decreased with loan growth more than offset by derivatives counterparty and trading RWA given a combination of seasonality, market conditions and all the enhancements. Our net payout ratio for the quarter exceeded 100% and we repurchased $5.7 billion of shares.

Moving to Consumer & Community Banking on Page 5. CCB generated net income of $4 billion and an ROE of 30% for the fourth quarter. And for the year, nearly $15 billion of net income and an ROE of 28%. Customer satisfaction remains near all time highs across our businesses.

For the quarter, core loans were up 5% year-on-year, driven by Home Lending up 8%, Card up 6% and Business Banking up 5%. Deposit grew 3%. Growth continues to slow given the rising rate environment, but importantly, we believe we continue to outpace the industry.

Of note, this quarter, we opened the first 10 branches in our expansion markets increasing D.C., Boston and Philadelphia. And although it's clearly early, perception in the market and the performance of the new branches has been strong. Despite volatile markets, client investment assets were still up 3% and we saw record net new money flows for the year.

Card sales were up 10%, debit sales up 11% and merchant processing volume up 17% reflecting a strong and confident consumer during the holiday season. And keeping with our focus on digital everything, of note, active mobile customers were up 3 million users or 11% year-on-year.

Revenues of $13.7 billion was up 13%. In Consumer & Business Banking revenue was up 18% on higher deposit NII driven by margin expansion. Home Lending revenue was down 8%, driven by lower net production revenues in a low volume, highly competitive environment.

And of note, while not a material driver of overall expense, revenue headwinds here were offset by lower net production expense. And Cards, Merchant Services & Auto revenue was up 14%, driven by higher Card NII, although loan growth and margin expansion, lower card, net acquisition costs, principally Sapphire Reserve and higher Auto lease volumes. Card revenue rate was 11.6% for the quarter and 11.27% for the year as expected.

Expense of $7.1 billion was up 6%, driven by investments in technology and marketing and Auto lease appreciation partly offset by lower FDIC charges and other expense efficiencies.

On Credit, net charge-offs was down $18 million as modestly higher charge-offs in Card were more than offset by lower charge-offs in Auto and Home Lending. Charge-off rates were down year-on-year across all portfolios.

Economic indicators remain upbeat. And given the breadth and depth of our franchise, we have a pretty good barometer. From everything we see, the US Consumer remains very healthy.

Now turning to Page 6 on the Corporate & Investment Bank. CIB reported net income of $3 billion and ROE of 10% on revenue of $7.2 billion for the fourth quarter. And for the year, net income was nearly $12 billion and an ROE of 16%. In Banking, it was a record year for both total fees and advisory fees. We ranked number one in Global IB fees for the 10th consecutive year, gaining share across all regions.

Fourth quarter IB revenue of $1.7 billion was up 3%. We feel continued momentum in advisory with fees up 38% driven by the closing of several large transactions. For the year, we ranked Number 2 in wallet gaining share.

Equity underwriting fees were down 4% but significantly outperforming the market. We ranked Number 1 for the year and the quarter and saw our leadership positions across all products globally with particular strength in IPOs as well as in the technology and healthcare sectors.

And debt underwriting fees were down 19% versus a strong prior year and sectors in the market. We maintained our number one brand rank for the year and continued to hold strongly lead-left positions in high-yield bonds and leveraged loans.

Moving to markets. Total revenue was $3.2 billion, down 6% reported and down 11% adjusted for the impact of tax reform and Steinhoff margin loan loss last year. A confluence of factors throughout the quarter including trade, concerns around global growth and corporate earnings, fears of lower mortgage fares as well as other negative headlines caused spikes in volatility which were amplified by markets that assets and liquidity. And although we saw decent client flow, rates rallied, spreads widened and energy prices fell significantly, all against general market conviction that was anticipating a stronger end to the year. As a result, fixed income markets in particular were challenging with revenue down 18% adjusted. Weaker performance across rates, credit trading and commodities was partially offset by good momentum in emerging markets.

Equities revenue was up 2% adjusted, a solid end to a record year. Client continued to do well but we saw client deleveraging over the course of the quarter and cash derivatives were solid in a tougher environment.

Treasury services revenue was $1.2 billion, up 13%, driven by growth in operating deposits as well as higher rates but also benefitting from fee growth on higher volumes. Security services revenue was a $1 billion, up 1%. Underlying this was strong fee growth and a modest benefit from higher rates together being substantially offset by the impact of lower market levels and the business exit. Credit adjustments and other was a loss of $243 million, reflecting higher funding spreads on all derivatives.

Finally, expense of $4.7 billion was up slightly with continued investments in technology and bankers and volume-related transaction costs, partly offset by lower FDIC charges and lower performance-based compensation. The comps and revenue ratio for the quarter and for the year was 28%.

Moving to commercial banking on page seven. The commercial bank reported net income of $1 billion and an ROE of 20% for the fourth quarter, and for the year $4 billion of net income and a ROE of 20%. Revenue of $2.3 billion for the quarter was down 2%, and for prior year included a tax reform related benefit. Excluding this, revenue was up 3%, driven by higher deposit NII. Gross IB revenue of $600 million was down 1% year-on-year but up 4% sequentially on a strong underlying flow of activity, particularly in M&A. Full-year IB revenue was a record $2.5 billion, up 4% on strong activity across segments, in particular middle market banking which was up 8%.

Deposit balances were up 1% sequentially as client cash positions are seasonally highest toward year-end although down 7% year-on-year as we continue to see migration of non-operating deposits to higher yielding alternatives. We believe we are retaining a significant portion of these flows. Expense of $845 million was down 7% year-on-year as the prior year included $100 million of impairment on leased assets. Excluding this, expense was up 5%, driven by continued investment in the business in banker coverage as well as in technology and product initiatives.

Loans were up 2% year-on-year and flat sequentially. C&I loans were up 1%, reflecting a decline in our tax exempt portfolio given tax reform. Adjusting for this, we would have been up 4%, which is still below the industry as we focus on client selection, pricing and credit discipline. But keep in mind, in areas where we have chosen to grow such as in our expansion markets, we are growing at or about industry benchmarks. CRE loans were up 2%, also below the industry as we proactively slowed our growth due to where we are in the cycle, through continued structural and pricing discipline and targeted selections as we build. Underlying credit performance remains strong with credit costs at a $106 million including higher loan loss reserves, largely due to select client downgrades.

Moving on to assets and wealth management on page eight. Assets and wealth management reported net income of $604 million with a pretax margin of 23% and an ROE of 26% for the fourth quarter. And for the year, net income was nearly $3 billion pretax margin at 26% and an ROE of 31%. Revenue of $3.4 billion for the quarter was down 5% year-on-year with the impact of current market levels driving lower investment valuations and management fees as well as to a lesser extent, lower performance fees. These were partially offset by strong banking results and the cumulative impact of net inflows. Expense of $2.6 billion was flat, as continued investments in advisors and in technology were offset by lower performance-based compensation and lower revenue-driven external fees.

For the quarter, we saw net long-term outflows of $3 billion with strength in fixed income more than offset by outflows from equity and multi-asset products. Additionally, we had net liquidity inflows of $21 billion. For the 10th consecutive year, we saw net long-term inflows of $25 billion this year, driven predominantly by multi-assets and in addition saw $31 billion of net liquidity inflows this year. Assets under management of $2 trillion and overall client assets of $2.7 trillion were both down 2% as the impact of market levels more than offset the benefit of net inflows. Deposits were flat sequentially and down 7% year-on-year, reflecting migration into investments, and we continue to capture the vast majority inflows. Finally, we had record loan balances, up 13% with strength in global wholesale and mortgage lending.

Moving to page nine and corporate. Corporate reported a net loss of $577 million. Treasury and CIO net income of a $175 million was up year-on-year, primarily driven by higher rates. Other corporate saw a net loss of $752 million, including on a pre-tax basis funding our foundation for corporate philanthropy $200 million this quarter, flat year-on-year, and including a $150 million of markdown on certain legacy private equity investments market related. Remainder is driven by tax-related items, totaling a little over a $300 million. And within this are two notable components. The first is regularly tax reserve; and second represents small differences between the effective tax rate for each for our businesses and that for the overall company as we close the year. So, therefore there is an offset across our businesses. Our full-year effective tax rate was just a little over 20%, in line with guidance.

Moving to page 10 and outlook. We will give you more full-year outlook and sensitivity information at Investor Day as always. However, for now, I would like to provide some color and reminders about the first quarter. Net interest income will continue to benefit from the impact of higher rates and growth but quarter-over-quarter will be negatively impacted by day count. And we expect the first quarter NII to be relatively flat sequentially. While it’s too early clearly to give guidance on fee revenues, it’s also fair to say that this quarter market is still calmer and more positive and capital market pipelines are strong. So, if the environment remains positive, we would expect normal seasonal strength in the first quarter. But I will remind you that the first quarter of 2018 included a $500 million accounting write off as well as broad strength in performance. Expect expense to be up mid-single-digits year-on-year, obviously market dependent, primarily annualization effects. And finally, as I said, we expect credit to remain favorable across products.

So, to close, while the markets in the fourth quarter were more challenging, we should not lose sight to the fact that 2018 was a strong year, indeed a record for revenues, net income and EPS, both reported and adjusted for tax reform. Fundamental economic data remains supportive of continued growth, and we're generally constructive on the outlook for 2019. We have good momentum coming into the year and the company and each of our businesses are very well positioned.

With that, operator, we can open up the line for Q&A.

Question-and-Answer Session

Operator

[Operator Instructions] Our first question is from Erika Najarian of Bank of America.

Erika Najarian

Hi. Good morning. So, the way bank stocks have performed, clearly, investors are starting to worry about revenue trends near-term and of course credit, which you addressed. I'm wondering if the revenue trends continue to be weaker than expected, if the overhead ratio of 57% that you posted in '17 and '18 is something that you could continue to level off to, or will the investment horizon be more of a dominant factor when we're thinking about the overhead ratio.

Marianne Lake

Yes. So, I would say a couple of things. The first is just to remind you that '17 and '18, I would look at a GAAP rather than a managed basis because of the adjustments to our revenues from tax reform. But that said, we have -- while we don't set expense target, nor do we set overhead ratio targets, we have given you some outlook that would suggest that we continue to believe that combination of revenue growth and expense discipline, notwithstanding the investments that we've been making, we should see our overhead ratio continue to be stable to trending down to the kind of mid-50, so 55ish%. Obviously, the timing of that will depend on rates and markets and everything else. So, we would expect to continue to deliver positive operating leverage on higher NII on growth if nothing else and continued solid growth in fees. Clearly in any one quarter, you can have pluses and minuses that can be market-dependent. But generally, over time, we would still expect those trends.

Erika Najarian

And just as a follow-up question, the market is also thinking that the last rate hike from the Fed was December, and I'm wondering how we should think about the dynamics of net interest income and more specifically net interest margin and deposit pricing if December was indeed the last rate hike for some time.

Marianne Lake

So, I would say, first of all just to say that the question mark about whether that's a pause or a stop; is it the end of the cycle, we don't think so. We think the outlook for growth and the economy is still strong; the consumer is still strong and healthy; and we are expecting to still see maybe slower but still global growth going forward. Having said that, just as a general matter, you've seen through our earnings at risk that as we have put more and more of the benefit of past rate cut, rate hikes in our run rate, each incremental hike from here has whilst deposited significantly lower sort of incremental NII drive, and that -- the front end SKU is a lower percentage. So, it's nothing but clearly lower front end rates or lower long end of the curve or a flatter curve, all other things would be net modestly negative. But against that, you pointed out the potential for this to lead to lower or slower reprice.

So, as the Fed pauses, it is fair to say there could be an offset from lower reprice as people digest the data and understand whether this is a pause or not. We would still look -- we delivered $4.3 billion of NII growth in 2018. We will still benefit in 2019 from the annualization effects of the higher rates we've already had as well as solid growth. So, while you kind of expect 2019 over '18 to be at that level, it would still be strong NII growth year-on-year.

Jamie Dimon

I would say why it's equally if not more important than it was. So, if it is a pause because you are going to recession, you're going to do trades that obviously is very different than it's to pause, economy is strong and they raise rates, you know which one you would choose.

Marianne Lake

And if this were the end of the cycle, it's not a cycle we've ever seen before. So, in that scenario, if terminal Fed run rates 2.5% -- 4.5%, 5%, plus, I think we've never seen that movie before but that's not our central case. And by the way, the house did a research view. We would still need to see incremental hike this year; if not in the first half, in the second.

Operator

Our next question is from Jim Mitchell of Buckingham Research.

Jim Mitchell

Maybe a question on the card business. There has been chatter about sort of pulling back on rewards to kind of focus more on profitability. I guess, how do you think about the strategy in cards right now? And can that -- I think the revenue yield in the card business was up 7 bps to 11.57. Can that go higher from here as you maybe pull back on rewards?

Marianne Lake

Yes. I would say that when we think about the product continuum we have in the contrast, rewards is a very important part of driving engaged relationships with our customers. Customers are very attuned to it and are looking for value in the product. Value and simplicity and ease of use are the three things in the products that we deliver. So, for us, engage relationships, drive profitability, this is still a very profitable business. So, while we will always make adjustments to our offerings, it's not the case that we are looking at a meaningful pullback in rewards. And if you think about -- think for example our banking where we are looking to bring the impact of our products together, we are continuing to offer rewards-based incentive to drive engagement with our customers. So, we think it's a solid strategy of business that already has good returns. It's fair to say that we've seen a lot of competitive response and competitive products in the marketplace that are driving high rewards offerings too and we've not seen that lower -- our ability to acquire new accounts. So, we feel great about the value proposition, the simplicity and the compelling products that we have. So, it's very profitable business.

Jim Mitchell

So, we think about still seeing decent growth, how do we think about card losses specifically this year? You seem pretty optimistic on credit. Should we still expect some seasoning or do you think the macro trends are that positive that we hold steady? How do you think about credit and cards?

Marianne Lake

So, I think the macro trends are definitely positive. So, we are creating tailwinds, but it's also true we talked about the fact that if you go back to 2014-2015 that we had expanded our credit box, we'd expanded it intentionally at higher risk-adjusted margins. But over the course of the last couple of years as we've experienced that performance, we've done sort of surgical risk pullbacks, and we amended our collection strategy, all of which have led to a charge-off rate for the fourth quarter in ‘18 that's down slightly year-on-year and for the year that's a 310 basis points which is reasonably meaningfully below our expectations, even as late as the end of last year. So, we feel great that that kind of loss trends at that 310, maybe a little bit higher is something we should look forward to at least into 2019. And it will be helped by a supportive macro environment.

And we are seeing, if you unpick all of our trends, you see the phenomenon of three vintages. You see the mature vintages that continue to be stable to grinding lower in terms of delinquencies and loss rates. You see the older expansion vintages that have crossed peak delinquencies and are trending to a more stable level. And then you do have, obviously with new acquisitions, cohorts that are still seasoning. That will continue. But, net-net, we're expecting relatively stable loss rate that levels similar to 2018.

Operator

Our next question is from Saul Martinez of UBS. I'm sorry, his line has disconnected. Our next question is from John McDonald of Bernstein.

John McDonald

Hi. Good morning. Just wondering on the markets commentary, obviously super early in the quarter, but you mentioned things feeling better. Can you just talk about seasonality there but also just what feels better so far? And then, also in the fourth quarter, what you saw in leverage lending market, how much do you have to take in terms of maybe marks and leveraged loans and the hung deals? Little bit of color there would be helpful.

Marianne Lake

Sure. Okay. So, I would say that obviously the fourth quarter was challenging and there was a lot of market moves, a big sort of broad set of. And at that point, there were elevated concerns around trade, global growth data was causing concerns, there were concerns that the Fed was going to continue to be hawkish and not necessarily as responsive to some of the things the market was worried about. So, there was a lot of negativity, we think too much negativity priced into the fourth quarter. And it started to change a bit when we saw the first really strong unemployment trend which reminded people that there's a very long distance between 3% growth and a contraction. So, yes, we could see slower growth but still growth in the U.S. and across the globe, a slightly more constructive narrative on trade and that continues to broadly progress we hope and believe in a positive direction, and a more dovish outlook from the Fed that potential for that to be pauses in rates or being relatively supportive. And the fact that a lot of people were on the sidelines through the fourth quarter and investor appetite is out there for good value where it can be found.

So, I would say just early days in the first quarter. There are still obviously risks to the outlook. And any of those things could go the worse direction. But so far, things are just a little bit more positive and that's constructive. And therefore you would hope to see normal seasonal strength in January.

On leveraged loans, sort of just diving into the sort of potential for that to be hung bridges, it’s true that there was a significant market correction with spreads widening across high yield bonds and leveraged loans in the fourth quarter. Clearly, stepping back, while the industry -- leveraged finance commitments are -- they are materially down from before the crisis and very different. So, credit fundamentals look pretty good. Having said that -- and by the way, we passed on a lot of deals in the fourth quarter. We've maintained sort of our sort of protection in terms of flex pricing and flex protection. And as a result, the more maturity of our bridge that has -- still got decent cushion. That’s not to say that there's no deal that has the potential for there to be net losses after fee, but nothing that we would consider to be significant and nothing in the fourth quarter. I would also say that coming back to the first quarter that actually the market could be quite constructive to fixed income into the third quarter, given a more dovish Fed supporting corporate margin, corporate default rates are going to stay pretty low and we do have time. So, none of the deals that we have need to be brought to market in a hurry, and the market is moving in a positive direction.

Operator

Our next question is from Al Alevizakos of HSBC.

Al Alevizakos

Thank you for taking my question. I again want to focus a bit on the market's performance. You pretty much mentioned like weakness across the board in credit, in FX, in rates, which I assume like is the case. First of all, I want bit of an outlook on how you think rates will perform now that volatility has picked up. And more importantly, you mentioned strength in emerging markets. Can I ask whether that was primarily in Asia or LatAm? Thank you very much.

Marianne Lake

So, it’s no good of a conserve talking about how we think things are going to pan out in time in the first quarter other than just the general comment I’ve already made, which is the environment should be more constructive and we’re expecting decent volatility in client activity and we will see how that pans out. With respect to emerging markets, Latin America was a big piece but Asia too.

Operator

Our next question comes from Mike Mayo of Wells Fargo Securities.

Mike Mayo

I guess, I'm a little torn between the year and the quarter. So, I'll just ask it to Jamie. Jamie, it seems like you guys are very happy with the year with all the record revenues and earnings. But, the fourth quarter, are you happy with the fourth quarter, given expenses, credit, fees?

Jamie Dimon

I'm fully happy with it. The franchise is strong, we're investing in new products and services, but we're not immune from the weather and volumes and volatility. We're not immune from market prices and assets going up and down. And I like the loans up 6%, assets up, long-term flows up. I like the fact that credit card spend is up 10%, merchant processing is up 17%. Shares -- in almost every business, market shares have gone up. That's what I look at. I really don't pay that much attention to speed bump it a little bit but the fact that volumes were low in the last three weeks of December. I honestly could care less. I look at more in equities. We've gained share and we're now bumping up to number one. Those folks have done a great job, of course cash, derivatives, prime broker et cetera. And fixed income has maintained our share and we're adding products and services around the world. And we don't know it's going to happen next quarter and I don't care.

Marianne Lake

And we take the same division, we had strong first half of the year and we said long may it continue but it may not and one quarter doesn't make a trend. And so, we don't really react to the sort of micro, even though it was driven by the macro. The really underlying business drivers continue to be strong. And even in those businesses, we are holding leadership positions and gaining share. And so, this too will cost and things will continue to move forward in a constructive manner.

Mike Mayo

As a follow-up, let's talk about the weather. So, the weather is lousy at the end of the year and Jamie you were just appointed to your third year as Chairman of the Business Roundtable. So, in that role, what are you doing to help JPMorgan and I guess the other banks in terms of China, the government shutdown, immigration, some of these headline issues that Marianne talked about, having hurt the CIB in the fourth quarter?

Jamie Dimon

Yes. So, December is terrible but if you look at January, you have half of it back, generally in spreads and markets and stuff like that. And as BRT, I don't do anything that benefits JPMorgan. That's about public policy, that's good for growth of America in total, and so very specifically stayed away from doing about banks there. But the BRT does take up trade and we are supportive of the fact there are serious issues with China. We would like to see the trade deal get done. It looks like to us they are marching along at least to this March 1st deadline date that enough will be done to kind of get an extension and hopefully complete the deal. We would like to see immigration reform, so proper border security, allowing people who have advance degrees to stay here, having the doctors stay here, having more merit-based immigration and having some path to citizenship. That is the BRT position. We want more innovation. We'd like to reduce regulations at the local and federal level that stop small business formation. So, if you look at the BRT, there are 10 verticals around that -- and we try to do things that are good for the growth of America.

And bad policy can slow down the growth of America. I have pointed out over and over it takes 12 years to get the permits to build the bridge. And it took eight years to put a man on the moon. It is time that we reform ourselves and not blame anybody else for own lack of that we don't have kids getting at school of educations where they get jobs, the innovation has slowdown, the government R&D spending is down. I always think what can you do better and there is plenty in this country to do better to help growth over the long run. And it's not about helping it next quarter.

Operator

Our next question is from Glenn Schorr of Evercore ISI.

Glenn Schorr

Follow-up on John's question earlier on leverage lending. On slide 24, you see the balance on loans held for sale go from like $6.5 billion to $15 billion. I heard your comments on marks. I'm assuming that that is just disruption and you go back towards your normal level that's in the pipes and progress, but I just want to make sure that I'm not making that wrong assumption.

Marianne Lake

Yes. We are not expecting anything to be elevated.

Glenn Schorr

Okay, cool. And…

Jamie Dimon

That number goes up or down over time just based on episodic -- what is cleared out of the books. There is nothing in our number we are afraid of.

Glenn Schorr

Understood. Curious on the credit on the couple of marks and C&I, I'm just curious on how much of that is internal versus external rating agency. And I guess, it's a feel for the underlying fundamentals. How do you know we should treat that as idiosyncratic as you go?

Marianne Lake

So, it’s internal and it’s like lines, sectors. We know the specifics, it is situationally specific. Remember, just to give you some context, while those can drive the dollar value, regular way in any quarter given the size of our portfolio, we might downgrade and upgrade hundreds of individual names based upon the circumstances. So, when we say that we are looking at it and saying that things are idiosyncratic, it’s not just looking at the five situations that drive the biggest sort of value, it’s also looking at the hundreds of downgrades and hundreds of upgrades and seeing if there is any trends or net worrying concern, and honestly not now. Then, so if anything, marginally, we had more upgrades but it’s just -- there is nothing to see right now in our portfolios and we are looking.

Jamie Dimon

We look for reasons to put up reserves, not to take them down.

Marianne Lake

We are more paranoid than you are.

Glenn Schorr

Last one, obviously markets all went down in the fourth quarter and we had some freeze-ups if you will in high yield first time in like 10 years. But, I'm curious how you all think the markets functioned in general? In other words, things went down, spreads widened out, there was lots of fear but it felt like the plumbing was working. But, I don't want to put words in your mouth.

Jamie Dimon

And half the people weren’t even here the last two weeks in December.

Marianne Lake

That's right. The plumbing was working; we didn't see any sort of technology issues; we didn't see any volumes that can be coped with. While I said that there was a lack of debt to markets and liquidity, that's typically the case when you have one way trends in the market and there are people similarly situated. So, I would say they relatively functioned well, but challenging.

Operator

Our next question is from Andrew Lim of Société Générale.

Andrew Lim

I just had a follow-on question from the vesting high yield mark's question. You seem to be getting the impression that there weren't really much in the way of marks. Is that because you've got very strong hedging strategies in place and that the decline in FICC revenues mainly was due to lower volumes?

Jamie Dimon

There were no marks.

Marianne Lake

There were no marks. In our business right now, we have -- for the vast majority, we have good cushion and we expect to be able to a clear and price through market. And anything that even border line, it's completely not material.

Jamie Dimon

I think there are few marks, if you look at what happened to flex pricing like mid-December when things were the worst, yes, some of these things were very close to the end of their flex pricing. And that means they are very close to have you some kind of mark. Of course, since then, the spreads have come, come back 40%.

Marianne Lake

Right.

Andrew Lim

Interesting, thanks. And then, my follow-up question is that obviously that capital markets had a tough time but you are wholesale lending, the growth has accelerated quite nicely. Do you get the impression that corporates had a general shift to seek borrowing from banks such as yourselves because they were shut out of the market?

Marianne Lake

I mean, there was an uptick at the end of the year, you saw it in the industry data, we saw it in our spot data. For us in fact, it was largely driven by one investment grade loan that we extended at the end of the quarter but there was a little bit of an uptick and a little bit more in terms of acquisition financing and the balance sheet but nothing I would call -- nothing that I would call unusual or a trend. We didn't have to take down things that would otherwise not play in the market.

Operator

The next question is from Matt O'Connor of Deutsche Bank.

Matt O'Connor

Good morning. I wanted to circle back on the expense flexibility. I think in your base case, you're pretty clear that you're targeting positive operating leverage and moving down the efficiency ratio to the mid-50s. But, what is some of the expense flexibility and where would it come from, if the revenues slide. I think in 2018, you accelerated some technology spend, given tax reform, you've been opening branches. Some of that stuff obviously can't be pulled back, but you always talk about some areas of flexibility. So, maybe what are those? And if you could kind of size or help quantify some of the flexibility you have, that'd be helpful.

Marianne Lake

Yes. So, I would say, first of all that you saw that from 2013 through '16, we had a pretty structural expense reduction program associated with simplifying our businesses. So, in terms of the low hanging fruit and things like that, we would say largely that's been harvested. We are always looking to generate core operating efficiencies so that we can absorb growth. And when we are investing in technology and data, one of the reasons to do it, customer satisfaction, product innovation aside is efficiency. So, we are seeing some of that come through. We'll continue to drive that down.

Jamie Dimon

But the efficiencies and the investments are all in the number that Marianne gives you when she says up 5%.

Marianne Lake

That’s right. The way I would say it is that we continue to drive for expense discipline. But as long as you feel as we do that the decision criteria that we use to determine the investments we're making which we think are strategically important for long-term growth of the company and the profitability of the company, supporting clients, if those are good decisions for long term growth, while we could obviously make changes, we would not look to do that. And so, marketing expense for example is one area where you would say there's pretty sizeable and immediate flexibility. Nevertheless, when we invest in marketing, we're driving new accounts and engage customers that drive long-term growth. So, we invested through the cycle. We think it sort of differentiates our long term performance and we'd like to continue to do that. 2019 over ‘18, you wouldn't expect to see necessarily the same clip up that you saw last year, we did accelerate investments in ‘18 and so more of the growth will be revenue related but still decent investments as the opportunity is still good to do that.

Matt O'Connor

Okay. That's helpful. And then, just on a sidebar here on the reserve build as we think about credit quality, are we just in the period now where we should assume kind of some reserve build consistent with loan growth each quarter or was this just a quarter where you had a couple of the lumpiness that really drove? I guess what I'm getting at is, last quarter you had modeled -- I guess what I'm getting at is like, it's -- are we at the point where like just a couple of lumpy loans was going to drive a few hundred million reserve build or is it just -- maybe it's a bit unusual still.

Marianne Lake

So, first of all, I'd sort of point out that in the cost base we hopefully continue to grow healthy mid-single-digits, the seasonality. There is seasonality to card balances and losses. And so you typically see reserve builds in the second half of the year. That's what we saw this year and actually a little bit lower year-on-year than last. And in the wholesale space you're going to see some things will be a bit lumpier and episodic given the nature of the loans that we have. I wouldn't necessarily say that we expect to see a trend from significant reserves but we've been factored by recoveries and releases over the course of the last couple of years partly or in large part at least earlier releasing reserves we took on energy when the energy went through the downturn. So, we'll have some downgrades. We might have some releases. I would, net-net, think that as we grow, we would build but not this proportionally. We’re obviously at a best point in the cycle. So, Jamie mentioned it earlier, to the degree that we have the flexibility, we're making sure that we are reserved accordingly.

Operator

Our next question comes from Saul Martinez of UBS.

Saul Martinez

A lot of talk on macroeconomics and the policy backdrop in volatile markets, but as you mentioned earlier, you guys are in a pretty unique position and that you have pretty consistent dialogue with a lot of economic agents whether it's corporate, governments, institutional investors and whatnot. But just a sense of what your clients are saying, what are they concerned about? Is there any concern on your part that some of these issues have sort of a self-fulfilling effect and that it does end up leading to actions that precipitate a downturn or recession?

Marianne Lake

I think that we would look to the sort of macroeconomic data, which is still generally supportive and so I think should be good. But for sure, investments is not immune to external factors. And so manufacturing data has been a little weaker I would say. CapEx is sluggish on sales around global growth. Government shutdown and trade are not particularly help, uncertainty is not good to anyone. So, there is no doubt that as things continue, if there is a level of anxiety and uncertainty, it's just not constructive for confidence and confidence that gets stronger or less strong market. I wouldn't say that I think it's clear and present. But I think we should be extremely careful because sentiment particularly consumer sentiment will be incredible important. And right now it's good, sentiment in consumer and we just got back some sentiment from I hope small middle market companies that while not at their high, but still very high.

Saul Martinez

That's helpful. If I could just ask about loan growth and is it just a more-broad question about your ability to continue to outpace the industry? And I suspect we'll get more color at Investor Day but just want to get your sense of the sustainability of growth and you mentioned on the commercial side, you maybe scale back a little bit, maybe we're late cycle. But, where do you feel like you can continue to outgrow the industry, where do you feel like maybe it's time to scale back on risk a little bit?

Marianne Lake

So, I think it's -- and incredibly nuance question, because in general, home lending has a challenging market backdrop. For us, it's tale of two cities. We're doing quite well and gaining a bit of share in the kind of retail purchase market. And we're holding the pricing discipline corresponding and leading share there. So, there is a challenging market backdrop, card was doing well at and it's sort factor of all things we talked about, investments in digital product, rewards all of the above. So, we would like to believe that we will continue to hold our own there. And auto is extremely competitive. We play in prime, super prime space. And we're seeing competition from people who have different economic drivers in our sight, credit unions and captives. And so, we're willing to lose share to maintain returns there.

You bifurcate C&I, we're growing in line, we're best in the industry in our expansion markets where we've been making the investments, where we've been adding specialized industry coverage. And we would like to see that because of the investments we're making. But in mature markets we're again being pretty prudent. I won't call it tightening but being very selective. And commercial real estate, particularly construction lending, yes, we're tightening. We're being very cautious about new deals and selective about it. So, it isn't the case anymore that we would say we're seeking to grow, although we ever were, loan growth is an outcome of number of factors, mainly the strategic dialog with our companies but also the environment we're in and it's extremely nuance. And in many of our businesses, we're going to protect profitability and credit discipline over growth at this point.

Jamie Dimon

So, maybe I'll just reemphasize that. We tell our management that we have no problem seeing loans books shrink. We're not going to be sitting here ever in our live to say and you got to grow the loan book, you got to show loan growth. Remember, Warren Buffett used to say in the insurance business and sometime it's true in the loan business, you're better off the sales force go play golf than there to make new loans. We're not going to be stupid. And the other thing you have to always keep in mind, it's not the loan, it's the relationships you look at in total. So, when it comes to middle market or all these other things are reasons that we stay in a business knowing there is going to be a cycle and we are not going to be children on this cycle. We know that losses are going to go up.

Operator

Our next question is from Betsy Graseck of Morgan Stanley.

Betsy Graseck

Hi. Good morning. Are we playing golf all day yet or is that still far away?

Jamie Dimon

Credit is pristine, mortgage credit is pristine, middle market is pristine. Underwriting has been pretty good other than a few little pockets that Marianne has mentioned. We saw people stretching in auto, we saw some stretching in -- and we're not going to self fund credit card, but little bit people are stretching in that. And leverage lending, we're not worried about all loan book. I think you can have a logical conversation. But there is kind of a nonbank loan book. But that's not our concern. And it is what it is at the time…

Marianne Lake

And I think where businesses are notably a little bit less relationship driven. So, think about kind of no new relationship, commercial term lending real estate banking, mortgage to a lesser degree also. We are seeing -- we are losing or seeking share where it makes sense to do it.

Jamie Dimon

Yes. And competition, we mentioned this before, it's back everywhere, and that's a good thing for America. And that means the pricing is little tough and you have compete.

Betsy Graseck

Yes. So, we are still off the golf course, all right. That's good. Just wanted to understand a little bit more on the expense side. I know it was -- even with the weather, you guys put out a 14% ROTCE, which is obviously best-in-class. The question is on the expenses, there is flexibility there but yet I know you've guided to up single digits in 1Q '19. Based on the prior conversation, it seems like 1Q might be in aberration of mid single digits or should I take that that's kind of the run rate you are expecting for the full year? So, why would 1Q be a little bit different I guess is really the question?

Marianne Lake

Yes. So, I wouldn't fully annualize the first quarter. But think about we've added bankers and advisors across our businesses. So, you're going to get annualization impact, particularly first quarter to first quarter. We have added more and more as the year progressed. Similarly, something like auto lease where we grew our auto lease business, revenues and expenses strongly in 2018 and that will be in our run rate in the first quarter. So, front office, auto lease, some of the technology investments we have making, the annualization of those will be more pronounced first quarter to first quarter than fourth quarter to fourth quarter because many of them are in our run rate in the fourth quarter. And then outside of that there is a bit more in real estate as we sort of execute on our head office strategy. And then marketing, foundation completion, those things -- there is going to be timing. So, the first quarter will be higher. I wouldn't annualize it. We are going to see nicely growth year-over-year much more because of revenue growth than the corporate investment of both year-on-year, not the same level as last year. And we will obviously give you a lot more detail and insights and thoughts on ranges and everything at Investor Day clearly.

Operator

Our next question is from Brian Kleinhanzl of KBW.

Brian Kleinhanzl

Just a quick question on the balance sheet; I'm if you gave us already. But just walk through the idea of lowering down the deposit with banks and kind of moving into repo, what you saw in the quarter and then kind of is that just something that was temporary, that's expected to reverse in the first quarter?

Marianne Lake

Yes. So, it's fair to say that money market rates traded above IOER throughout the fourth quarter and more pronounced at the end of the quarter. And so through the quarter and that year-end, we will able to take advantage of the market opportunity to move out of cash into cash alternatives, things, reverse repos and short duration assets. And so, for us, it was yield-enhancing opportunity to redeploy cash and a mix change rather than adding duration. And that continues to be the case into the first quarter. It contributed to our NIM expansion in fourth quarter. We continue to have a bit of that mix shift in the first quarter and it's a market opportunity.

Brian Kleinhanzl

And then, a separate question on, I know it's not a big revenue driver anymore but within mortgage banking, you had a negative gain on sale in the quarter. Could you just give us some color there, what drove a negative gain on sale?

Marianne Lake

Yes. So, in the quarter, and as we were looking at optimizing our balance sheet, we actually did a sale of conforming loans to GSE of about $5 billion. And the impact of that was perhaps a loss on the sale of the portfolio, given that they'd been originated at lower rates. So, as rates are higher, the fair value of the loan is lower. Against that, if you were to look at the rest of the P&L, you'll see a benefit in net interest income because the interest rate risk of that has been transferred to the Treasury Department. So, it's geography, it's a loss on the sale of a portfolio against which there's funding breakage in NII. Just so that you know, when we -- our mortgage loan with RWA 50% versus security at 20% with better liquidity value, we did reinvest some of those proceeds in mortgage-backed securities in treasury. So, we will earn that back over time, net for the company.

Operator

Our next question is from Steven Chubak of Wolfe Research.

Steven Chubak

Hey, good morning. So, I wanted to start with just a bigger picture question on credit and the impact of normalization. Certainly, the near-term guidance sounds quite encouraging. Jamie, you did make a comment recently at investor conference talking about how the banking industry is over-earning on credit, not particularly a controversial remark. But in the past, you guided to a medium-term loss rate blended basis of roughly 65 bps. That does contemplate continued loan losses in commercial. And just given that we’re late cycle, I was hoping you can maybe speak to your expectation for what a normalized credit loss rate is for JPMorgan, given your current mix and where that might differ from your medium-term loss guidance?

Jamie Dimon

So, we're not talking quarter-over-quarter, we’re just taking in general trends…

Steven Chubak

I'm talking in bigger picture.

Jamie Dimon

So, Marianne has shown year-to-year we consider it normalized losses. And for years, we've been doing better than that. In credit card, middle market, large corporate, mortgage has come back down to a very low number. And at one point, it's going to go up. And so, I'm not -- we're not telling you what's going to happen next quarter. Right now, it looks like it’s kind of steady state. But at one point we will not be surprised see it go up. I don't know if it could be second quarter, third quarter, fourth quarter, and I don't know if we’re relate cycle. We don't exactly know where we're in the cycle.

And so, we just won’t be surprised to see it go up. And the number -- if we look at it by product, we're looking at a total that can actually -- may vary against the total.

Marianne Lake

I think, I hate to say this because I know that you don't want to wait a few weeks but we'll have a more complete conversation about kind of range of total outcomes on credit at Investor Day but we -- when we gave our medium-term simulation we said listen, we did a 17 return on tangible common equity in 2018 and our medium-term guidance is for 17%. We under earned against our guidance in other parts of the cycle. Maybe we’ll over-earn against it. But NII and repo bags are higher and credit is benign. And at some point, we would expect both of those things to normalize but we would continue to see solid growth in all of our drivers. So, we don't know when it will be and actually don't see anything that -- I know you say in the second, third or fourth quarter. There's no indication that it's in any of those quarters. But, we'll have a more comprehensive discussion at Investor Day about range of total outcomes.

Steven Chubak

We're looking forward to that. And just one follow-up for me on the IB outlook, Marianne, I was hoping I could unpack to some of your comments around the -- how the IB backlog. You cited that as being quite strong. But just looking at the individual businesses for M&A, ECM, DCM, especially given some the economic pressures outside the U.S. what informs your outlook across each of those?

Marianne Lake

Yes. So, I would say that first of all, we did see, given the conditions in the fourth quarter, a number of deals that got pushed from the fourth quarter into the first quarter, particularly in ECM and DCM, in M&A there was a bit more balance so every deal that got pushed or stopped, there were more that came to take its place. But as a result as we go into the first quarter, pipelines across the board are elevated relative to last year and pretty strong. And at the end of the day, we talked about earlier, confidence is still high, companies are still motivated to drive growth. And so, the environment should be constructive for continued M&A. Technology, healthcare, biotech innovation, technology innovation, momentum in ECM that we've been benefiting from and the IPO pipeline should continue market dependent. And notwithstanding December, actually a sort of lower outlook for rates in the U.S., should broadly be a tailwind for fixed income in the first quarter, the first half. So, the second half of the year, I think is going to be determined by how things shape up over the next several months. But looking into January, again, if the market remains generally constructive, we should see tailwinds across the businesses.

Jamie Dimon

I think potential backlogs, generally, you want them high because that's good, but they're all like an accordion, too, they come and go. So, that's not a forecast for the future that you'd definitely get those revenues. They could get delayed, particularly things like IPO that you've already seen. I just want to point out, the shout out to the folks in the investment bank, our market share went up in Europe, Asia, Latin America and United States last year. That's what we really look at when we look at the business.

Marianne Lake

60 basis points full-year.

Jamie Dimon

60 basis points all year. And first time ever, it went in all four major in markets.

Operator

Our next question is from Marty Mosby of Vining Sparks.

Marty Mosby

Jamie, I was glad that you mentioned that we don't know the red end of the cycle because that's kind of just assume because of that lapse of time, but not really the economic factors. And then the other piece of this is, when you look at losses, they tend to be good until they go into recession. Then, they are bad. There is no just kind of normalization. So, the question about a normal rate of loss that we really have two dichotomous answers. We have a good answer, which is when we're expanding and the economy is stable, and we have a bad answer or recession. It's kind of one or the other. Just want to see what you thought about that.

Jamie Dimon

You're exactly right. At one point you're going to over and at one point you're going to under run. And we try to -- when we look at the business, we kind of try to price through that. So, we're trying to earn fair returns through the cycle. And I totally agree with you. We know it's going to -- they are going to change at one point. And we try to do a better job underwriting too but we do work hard and make sure we underwrite other people as best we can.

Marty Mosby

Which then limits the volatility when you go into that bad period, which is what you want to do. You underwrite to make sure you're defending against that cycle.

Jamie Dimon

Exactly, and the other one you have is the reserves. You put them up, you take them down. So, our total reserve is what 14 billion? But at one point they were 30. So, we went from -- in the great recession, went from 7 to 30 back to 14. And I call it income paper. It doesn't mean advantages, but when you go into that recession, your losses go up, any reserves have to go up. And we're completely aware of that.

Marianne Lake

Although I think we have to say, for obvious reason, that we wouldn't expect any near-term recession if there is one to anything like it did before. And even if it did, given the credit quality of the portfolio, performance will be not only absolutely better but we think strong on a relative basis.

Jamie Dimon

Other than -- if you look at the consumer, that $13 trillion that's outstanding, other than student, which is fundamentally owned by the government, the more stuff that's been written is prime. So, back to $10 trillion, it is much better than what it was in '07. And I think credit card, I forgot the exact numbers, much more prime than was in '07. I think order is about the same but order actually outperformed, more prime and outperformed in the great recession. I think people in general have done a better job underwriting middle market and leveraged up than it did last time. I think if you start a recession soon, going into it, the credit portfolio is much stronger than last time.

Marty Mosby

And the follow-up question to that is, we talked about auto and some of those other places where you saw some of that deterioration, what our model showing is that actually the discipline and the reaction time to that deterioration is much quicker than when we saw the one to four family cycled the last time where you saw deterioration but growth just kept going. We had so many banks jump in and say, look, we've already pulled back on auto lending, we pulled back on multifamily. There have already been places where you've seen that discipline. So that discipline in itself put the governor on economic growth, which is why we're having less growth or slower growth but yet it also creates a like you said, a stronger portfolio for that eventual downturn.

Jamie Dimon

I agree with that. Lack of discipline we see is in student and a little bit in small commercial real estate.

Operator

Our next question is from Gerard Cassidy of RBC.

Gerard Cassidy

Can you guys -- there has been a lot of talk about leveraged loans and how this time around everything seems to be underwritten better. Are there any tangible statistics that you can share with us or maybe on Investor Day you might do show us that yes the leveraged loan portfolio for you guys in particular is much healthier than maybe '06-'07? And then, second, on this leverage loan issue, outside the banking industry, what are some of the indirect hits that you and maybe some of your peers may experience, none from the direct hit of the leverage loan but for some of the craziness that's going on outside the banking industry?

Jamie Dimon

Yes. So, can I just give a big picture of this? I think $1.7 trillion of leveraged loans, okay. So, term A is about half of that. These are very rough numbers, okay, most of it with banks, and obviously safer than term B. A big chunk, over I think 60% or 70% of the term B is with nonbanks. And so, if you look at your at banking system, if you look at the leverage lending bridge book in '07, it was over $400 billion; today's it's number like 80. In '07, there were commitments and no flex and everyone has plenty of flex now. So, we look at covenants, so it's kind of covenants but there's flex and there is a whole bunch of stuff in there. So, it is far, far, far sounder today. Even these CLOs, you look to underwrite the CLOs, they are far better underwritten with more equity, more sub debt and more mezzanine stuff like that.

And go to shadow banks, they do things like differently. A lot of those folks are quite bright, they know what they're doing. Someone is going to get hurt there. And the issue there is in the next recession because the -- and remember, most of the major banks don't fund a lot of that. We aren't taking huge indirect exposure to that by funding some of the nonbanks. And

I think the issue there is for the marketplace it's going to be -- when you have a recession, the lender will not be there. So, a lot of these borrowers will be stranded. So, that's not -- that's an opportunity or risk or something like that but it's not -- I wouldn't put it in the systemic category.

Again, if you go back to '07, we -- it emerged in '07 there was $1 trillion of bad mortgages that were kind of all over the place, the CLOs, SIBs. There are no SIBs. The CLOs are much smaller. The leverage lending book is much smaller book. Capital liquidity is much higher. So, it is nothing like '07. You will have a recession, it just won't be like you had last time affecting the banking system. It will affect the banking system. We are little bit canaries in the coal mine. We are not immune to what goes in the economy. But it won't be anything like you saw last time for most of the larger banks.

Gerard Cassidy

No. I agree with that. And do you think Janet Yellen and other Federal Reserve officials comments about leveraged lending is more directed to the exposure outside the banking industry than inside the banking industry?

Jamie Dimon

Yes, I do.

Marianne Lake

Yes.

Jamie Dimon

Yes. Again, I don't think they were saying it's huge and systemic. They're saying it's something that you should keep an eye on. I think that the regulatory do keep an eye on that.

Gerard Cassidy

And then just to pivot on deposit question. Obviously, noninterest bearing deposits are tough to keep as rates are going higher. Can you guys give us some color on the non-interest-bearing deposits? There is obviously a small decline. What parts of the business you're seeing there, and the Fed's unwind of its balance sheet, how much of an impact do you think that might be having on the non-interest-bearing deposits?

Marianne Lake

So, the migration into product from noninterest to interest bearing is predominantly or largely exclusively a wholesale thing. At this point there is not enough rate benefit in the interest bearing savings to drive into product migration, definitely some growth outlook in CDs given pricing, but it's wholesale right now and it's mainly rate-related and not balance sheet in terms of the Fed unwind.

Jamie Dimon

Can I just make a comment about interest rates and the balance sheet of Fed? So, the interest rate is one thing but the balance sheet of Fed obviously is causing changes in the flow of funds. It's causing changes in that banks now have options other than reserves at the central bank because the two-year and three-year bond yields for corporate -- government bond is much higher, some people are preferring to own that because they think it would be paid better than corporate risk. So, changing the whole bunch of fund flows concerns people, but I'd say it's part and process of normalization.

Operator

Our next question is from Ken Usdin of Jefferies.

Ken Usdin

There were couple of Fed or regulatory documents out in late December, one is codifying the three-year burning of stated seasonal impacts and another one where they are pushing out till '22 on their own implementation of CECL accounting in the supervisory stress test. I was just wondering, just any takeaways you had from reading that and any hopes you might have for just as we get toward some finalization of which way CECL goes and how it looks, aspirations around that and how that interacts with CCAR and such?

Jamie Dimon

Before Marianne answers that question, I just want to do a shout out to Jefferies because we actually look at what everyone does and every investment banking group, and you guys did a hell of a good job in healthcare this year.

Ken Usdin

I'll pass that along, Jamie.

Marianne Lake

Following that -- it's hard to follow, I would say that we've been pretty clear about the fact that our biggest concern around CECL was properly understanding not just for us but regulators to properly understand the implications for capital, not only in benign but in stressed scenarios, and what the implications of the outcomes that it could have on the willingness of people to extend credit, particularly as cycles age and with the outlook for volatilities to increase. So, having a transition is obviously helpful. You should imagine that we would likely avail ourselves of that opportunity. That is what it is. For me, the question that needs to be clarified is if we are to include the impact of CECL in company run stress test, but the Federal Reserve is not going to include it in the stress test, we need to kind of understand the insight between those two things, particularly if that might coincide with a turn in the cycle in actual fact.

So, I think we're looking for continued clarity from the regulators about what exactly that means. If we're embedding these assumptions into our stress tests and our results sooner than they are, how do we think about the implications of that on our distribution plans and capital outlooks. And you know importantly if it really is the case that we have to upfront significant amounts of capital for longer term and lower credit quality loans I do really believe even though the cash flows and the economics, secular change, that you might find people less willing to lean into growth for longer duration assets if there are concerns around potential business. And we should worry about that.

Jamie Dimon

It'll be a big number for like credit card. So, if you put 3% now on when you build the loan book by $100, the number would be 6%. Some number in the future will be much higher. So, I do think particularly smaller banks will react fairly dramatically how they run their loan books through that.

Marianne Lake

So, our view is that more on that needs to be done in the industry about what this looks like. I hope that what was meant by we should include it in company run stress test is for us to collectively learn and for the regulators to have the time to respond to that. But remember, 2022, considering all the discussion we've had on this call about the cycle, how long the cycle is, when there's a turn in the cycle, and we could actually face a stress before that. And so it's great that they are waiting a bit, but it might all be a bit of an academic point depending on what happens actually.

Ken Usdin

Yes. That's a fair point. And Jamie you've also said in the past that you guys lend on accounting -- don't lend on accounting and lend on economic, but there's this kind of challenge to that that Marianne just mentioned about the unintended consequences. And so, it would be interesting to see that if there is in fact the point where banks don't lean in as you just mentioned, Marianne.

Jamie Dimon

They will change.

Marianne Lake

Yes. And we have the luxury or the flexibility of being able to say that we can continue to lend based upon the underlying economics but someone who has a differently situated balance sheet and return profile may not be able to do that.

Ken Usdin

Okay. Thanks for the color.

Operator

Our next question is from Mike Mayo of Wells Fargo Securities.

Mike Mayo

A follow-up on the net interest margin, two sides to the question, one is commercial loan pricing. I guess, it's been kind of brutal you've had the BDCs, private equity firms, loan funds all computing. Has there been any let up with some of the dislocation the capital markets late in the year. And the other side, retail deposit betas, Marianne, you thought they would get a lot worse. I don't think it's been as bad as you thought. What was your retail deposit beta and what do you still expect?

Jamie Dimon

Before Marianne answers that can I just go back to the cyclical stuff? It's not just CECL a lot of things that have been built and since the crisis were really good, there was more pro-cyclicality built into it. And so you're going to see the next downturn that we have a far more pro-cyclical accounting, liquidity and rules, and rules capital and stuff like that, which we don't know the full effect of that. But if I was a regulator, I would be very cautious about constantly building pro-cyclicality into the system. And I gave you the example, it's our loan books, they're going from 7 to 30 or whatever they went to back to 14. It will affect how people respond to in the downturns. And it will cause people to pullback much quicker than maybe in the past in total.

Marianne Lake

Okay. So, just on your question, so corporate loan spreads, I would say, we did see sort of pretty brutal grinding down in corporate spread. But over the last actually couple of quarters, we saw them find a bit of an equilibrium and stabilize at levels. So, while, I would say it's still true to say that there is a lot of competition, at least in the space in which we're operating we're seeing spread at relatively stable levels in the corporate space. And honestly I don't remember saying that I thought we would see an acceleration that was dramatic in retail betas in the short-term. Obviously at some point when the when we have this level of rates and the spread between market rates and rates paid get to a certain level and if normalization continues, we would expect to see repo flags catch up. But, we have not seen that yet outside of CDs in retail phase right now.

Mike Mayo

And the way you calculate it, what was your retail deposit beta this quarter and how does that compare to the past?

Marianne Lake

So, in checking and savings and lead savings, it's nothing. In CDs, it's something but around to a very small number.

Operator

Our next question is from Gerard Cassidy of RBC.

Gerard Cassidy

Just a quick follow-up, Marianne. Have your investment bankers on the front lines passed on any concerns about the government shutdown? There is reports that the SEC is not open. And is that slowing down the investment banking business and your thoughts on that?

Marianne Lake

Yes. So, I would say that we've been -- we benefited from the fact that year-end and into the early part of January and holiday season have a light calendar, typically in January for IPOs in particular. But for sure, if we don't see the ability to get approvals from SEC on IPOs and to a lesser extent some of the M&A deals that need approvals from government agencies, it will be problematic in the ability to see those activity levels play out and fees be realized. So, it's one of many things that would behoove us to end this sooner rather than later.