
2019 INVESTOR DAY

TRANSCRIPT

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MANAGEMENT DISCUSSION SECTION

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

Good morning. Good morning. Good morning, everyone. I'm Jason Scott, I'm the Head of Investor Relations for JPMorgan Chase. I'd like to sincerely welcome you to Investor Day 2019 and thank you for coming to join us today. I know it's early. I know you had to navigate a construction zone with sidewalk bridges and sheds and barricades to get in the door even so I know you really want to be here or somebody forced you to come, but either way we're glad you're here. And now that you are through the gauntlet and in the room, I just want to ask you to stop for a second, look around, pause, for most of you this is the last time you will ever be in this building. A lot has happened here over the decades. This company has grown to what we are today, but I think it's pretty clear, you can see outside we meant it when we said a year ago we're taking this thing down and we're moving forward with the new headquarters. That's the right thing for JPMorgan Chase going into the future.

But before we get a few years ahead of ourselves here, let's start with why you're here today? You're our largest shareholders, debt holders and you're the folks that write about us and analyze us every single day. So, you need to know what we're up to in really quite a lot of detail to even do your job. And so you'll get to hear from some of our business heads, hear them talk about what they do every day to make this company a leader across businesses, how they invest, think about long-term strategy and success. And you'll definitely hear about our leading financial performance and how we continue to drive value over time for you all.

So now the only thing standing between you and all of that good stuff, just a few logistical items. First, breaks. For those of you online and in the room, we'll do the first two presentations before taking a short 15-minute break around 9:45 then another at 11:00 a.m. Then we'll pause for our traditional lunch with senior management at about 12:15 before concluding the day with remarks from our Chairman and CEO, Jamie Dimon.

So hope everyone sticks around for the whole day. A lot of good stuff happening. Hope you listen to the presentations from all our businesses, ask lots of good questions. And now last but not least please turn off your phones or silence them now. And remember for those of you in the room when you ask a question, we've got thousands of people on the webcast, so please wait for the mic, introduce yourself, your name and your company. And don't forget to take a quick look at the forward-looking statements. So again, thanks very much for coming today. I also want that thank my partners to make this happen for the firm.

Now let's go ahead and get started with our CFO, Marianne Lake.

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

Good morning, everybody. Good morning. I will start the firm overview where I always do, by reminding you of the unwavering tenets and the operating principles of the firm. First, we are complete, global, diversified and at scale. We are committed to the completeness of our platform, importantly providing our customers with everything they need to properly operate their lives and their businesses. And we believe that this is a source of strength and diversified earnings through the cycle. We've said it before, but scale has never been more important. Scale isn't only necessary in order for us to serve our global clients, but it also helps create operating efficiency which is to our customers benefit, and whether we are a leader or whether we're a fast follower, we're able to disrupt at scale through unique product offerings and capabilities, through competitive pricing and rapid adoption.

Next we operate with fortress principles writ large and that includes capital and liquidity, but also includes risk management, governance, conservative accounting and more. And finally, we are religious about investing over the long-term and not being distracted by the weather over the short-term. Our investment in customer experience and innovation is working and customer satisfaction is at or near all-time highs across all of our businesses. We believe that our ability to continue to invest through all parts of the cycle is also a core strength.

So together these are the consistent operating principles. You've heard me say them year-after-year. And this is why we believe we have had and will continue to have leading financial performance. And 2018 was obviously no exception. You can see that on page two.

2018 was a record year, record revenue and record net income for the company but also for each of our businesses. And that is either with or without the benefit of tax reform. We saw nearly \$112 billion of revenue last year, \$32.5 billion of net income and a 17% return on tangible common equity. And on capital distribution, we delivered significantly higher net payouts over the last two years, have consistently increased our dividend, all while maintaining a CET1 ratio of 12%. So 2018 was another record year on an absolute basis.

So let's just spend a moment on a relative basis on page three. You can see that we continue to be a leader among peers across virtually all measures on the page and is driven, in large part, by the long-term investments we've been making. We have consistently invested. We've invested in customer experiences, adding bankers, advisors, opening new branches, entering new markets and innovating our products and services. But we don't take these leadership positions for granted. We do know that complacency is the enemy. And so we are also acutely focused now more than ever on eliminating and busting bureaucracy and waste, speeding up decision-making and time to market.

So let's take a quick look at the strength of our client franchises and those leadership positions then on page four. As we said before, we serve over half of America, that's over 60 million U.S. households, including 4 million small businesses. We do business with more than 80% of Fortune 500 Companies in 100 markets globally. In the Commercial Bank we support 17,000 commercial and industrial clients as well as 34,000 real estate owners and investors. And we have relationships with more than half of the world's largest pension funds, sovereign wealth funds and central banks.

In our Consumer Bank, within our footprint we have number one primary bank share. We are the leader in deposit growth and the number one U.S. credit card issuer. In the Corporate & Investment Bank, we're number one in global IB fees consistently, the leader in overall markets revenue, number one in U.S. dollar payments volume and top three in each of treasury services and custody.

In the Commercial Bank we are the leading U.S. multifamily lender and our Commercial Bank clients accounted for \$2.5 billion of investment banking revenue last year. And finally in Asset & Wealth Management, our number one Private Banking franchise in North America coupled with our strong investment performance in Asset Management contribute to consistently strong asset growth.

So we are starting from a strong place but the only way to know if we are continuing to make progress day-by-day is to focus on market share which you can see on page five. And the upshot here on page five is that we have maintained or gained share across our businesses and where we've lost share it's been intentional, it's been in order to preserve returns or to a lesser extent because we walked away from business that was outside of our risk appetite.

If we start with the CIB, you can see that we gained 60 basis points of share in IB fees year-on-year which is itself significant. And we gained share across all regions last year for the first time in 10 years. We've continued to grow share in markets revenue including in FICC where we were already at the high watermark as well as in the equities context, which had a record year given the investments that we've made.

In CCB, we continued to grow our deposits more strongly than the industry. We've gained some share in credit card sales from a clear number one position, and our focus on card balances is paying dividends. And while you can see on the page that in headline terms, we have ceded overall share in mortgage, auto, and for that matter in Commercial Bank lending, in areas where we've chosen to we've seen growth at or above the industry. So in mortgage in the consumer purchase market, in auto with our manufacturing partnership and in the Commercial Bank in our expansion markets.

In Asset & Wealth Management, we've maintained share in both active AUM and client assets. And from a standing start, you can see that last year we hit number four in U.S. ETF net flows last year.

So finally for this section, let's look at the growth metrics relative to our peers on the next page. These are also things that we have shown you year-after-year, and here too the story hasn't changed. We continued to lead the pack in most areas today, but importantly consistently through time. With both core loan and deposit five year CAGRs of over 9%, overall share in markets of 11.6%. Share in IB fees up significantly year-on-year, as I said. And in both cases, with a large gap to the number two spot.

In the top right chart, we had generated nearly \$450 billion of total net client asset flows over the last five years and consistently delivered double digit growth in all of card sales, active mobile customers and merchant processing volumes, all while importantly continuing to be a peer leader in customer satisfaction, which you see in the bottom right.

Okay. So enough then of a history lesson and let's talk a bit about the context, talk about how we are managing the company over the medium term. And so, we'll turn to page seven and the macro landscape. Coming into 2018, it's true that we were expecting global synchronized growth. And while the U.S. did indeed show strength on the back of tax reform and other fiscal stimulus, supporting four rate hikes last year, global growth while positive was disappointing relative to expectations coming into the year. And of course, overall confidence took a knock in the fourth quarter.

But coming into 2019 the situation has stabilized with generally solid U.S. data prints and a more dovish Fed narrative. Indeed, a Fed, that's likely to be on pause for a while which could have a natural consequence of elongating the cycle. But against that there continues to be some noisy data on the global growth front coupled with some political uncertainties including trade and Brexit.

So then as a setup to the rest of the discussion, you can see on the top left chart that the path of interest rates is reasonably uncertain from here. The market is assuming that the rate hiking cycle is effectively over and in fact pricing an ease into 2020. Against which our house view is relatively optimistic. We do expect a long pause this year, but we still believe that it's more likely that we will see another couple of hikes

from here over the next 12 to 24 months rather than an ease. But either way, there will be implications for deposit reprice on the top right and that will be important to the path of net interest income over the medium term and we will discuss that later.

In addition, while we do believe there's more room to run this cycle and we are optimistic that global growth will stabilize, on the bottom left you can see that those recent declines in business sentiment have driven recessionary indicators higher. They are not flashing red, but they are off the floor. So it's clear that for today that risks are much more symmetric than they have been or perhaps the Fed put it well in their minutes last week when they said the balance of risks is harder to characterize given the level of uncertainty.

But we remain constructive. And the data here in the U.S. is supportive of solid growth albeit lower. The U.S. economy is consumer-led and consumers remain strong and healthy. So given that macro environment, let's talk just for a moment about our balance sheet on page eight.

Looking at the chart on the left hand side, you can see that running up to and including 2016 we were able to optimize our balance sheet such that we kept advanced and standardized risk-weighted assets broadly in line with each other, which did allow us to continue to predominantly allocate capital on a risk based view. However, we have to recognize the reality of the capital regime that we live in. And as a result of growing a high quality loan book across our businesses, you can see that today there's a sizable divergence between the two measures and given the Collins Floor here in the U.S. we are clearly bound by standardized capital.

And staying just on loans for a moment on the right hand side of the page. We saw that core loan growth in 2018 was in line with our expectations but with growth decelerating across the board, home lending being a clear driver, but it wasn't the only one. And while loan growth has been a key focus area for all of you and for good reason, looking at 2019 and looking forward, it shouldn't be the singular focus when you also take into account other balance sheet trends.

So from here both as a result of the macro environment but also potentially as a result of balance sheet optimization decisions, which I will talk about in a moment, we do expect lower loan growth in 2019. But you can't look at loans just in the vacuum and there will potentially be offsetting growth in our investment securities portfolio.

So moving on to those other balance sheet trends, and moving on to deposit on page nine. Focusing on the top row on the left hand side, the row excluding non-operating deposits. You can see that from 2014 through 2018, total deposits grew at an 8% CAGR. In 2018, while deposit growth was solid at 4% year-on-year similar to loan growth it meaningfully decelerated, consistent with the industry and consistent with a period of quantitative tightening and higher rates. Consumer is slowing but we continue to expect to exceed the industry given the investments we've made. Over the last couple of years, Asset & Wealth Management and later the Commercial Bank saw migration out of deposits into investments and higher yielding assets, the majority of which we believe we have kept. And we think that most of this migration is behind us. We have a reasonably flat outlook from here. And in the CIB operating deposits grew on strong business growth, while maintaining discipline on non-operating deposits.

So looking forward then into 2019, we estimate that industry deposit growth will be in the low single-digits, will be about 2%. And our forecast is broadly in line to a little better than that. We do continue to expect generally slower growth in retail across the industry, as well as deceleration in wholesale as reserves in the system shrink.

But if we step back and I think it's important to do that, we did anticipate these trends, these trends are playing out consistent with our expectations and as such they have been contemplated in our balance sheet management through time.

So moving on then to what this might mean in terms of balance sheet optimization on page 10. Deposits are of course our most valuable source of liquidity. And as deposit growth slows, liquidity increasingly becomes more binding. And differently from capital, we can't earn more of it and the next dollar of it is significantly more expensive. It's a step-function change.

So as we grow our businesses, in addition to relative value decisions, marginal decisions increasingly matter and at the extreme you could assess them through a fully standardized capital and fully wholesale funded lens. And you can see just an illustration here on the page. But what it clearly shows is that on a standalone basis, not all, but many loans when measured through that rather extreme lens, would not produce returns above our cost of equity. And in many cases securities may look more favorable.

So of course, lending is an important part of overall client relationships and the franchise value of continuing to provide credit to our core customers should not be underestimated and we will continue to be there for them. But this is just to say that decisions of the margin do matter and all other things equal, they may favor a mix shift between securities and loans in order to maximize SVA.

So let's move on then and talk just for a moment about the regulatory landscape on page 11. So going on a bit of a journey, in 2010 when Dodd-Frank was passed, it predated any form of GSIB surcharge. It predated years of investment in risk management and governance and controls across the industry and it predated a plethora of layered new rules which you're familiar with including CCAR, new liquidity requirements, TLAC, resolution, recovery and more. And Dodd-Frank introduced the Collins Floor, which was a blunt instrument appropriate at the time. Think of the Collins Floor as a legislative down-payment towards end-state capital. So that was then, but this is now and in the middle of the page you can see three foundational principles that we think should be preserved.

First, global consistency and harmonization for a level playing field. Second, coherence and simplification of rules. And third, more coordinated regulatory supervision. And on the right hand side, you can see that as rules are finalized here in the U.S., we believe that all elements of such an integrated regime relate closely to each other and have to be considered together and appropriately calibrated in order to support the proper functioning of the markets and the economy through cycles. So, again, stepping back, importantly we are not arguing for overall capital levels to be lower necessarily, but we do believe that capital in the system is more than adequate and neither should the direction of travel be higher.

Given that we'll look at our implied capital trajectory from here on the next page on page 12. In many ways, there's nothing new here. On the far left-hand side of the page, you can see our current regulatory minimum which includes our management buffer is obviously still at 11%. You can also see that as recently as in 2017, even under the SCB proposal as it's currently drafted and without recalibrating the U.S. GSIB surcharge, our minimum capital would also have been about 11%.

But what is new is that when you contemplate using stress results as part of baseline capital then volatility in the stress severity including importantly counter-cyclicality would imply additional capital from here absent any offsets. Back to that point about all aspects relate to each other.

So the volatility worsened the magnitude of stress results materially last year, not just for us but for all GSIBs. So as we look forward, it does feel that there has been a generally warm reception to industry feedback, and we expect that incremental stress should be offset by other factors. Most notably, we continue to call for a fundamental rethink and recalibration of the U.S. GSIB surcharge, in light of both economic growth but also the cumulative effect of post-crisis reform.

Secondly, it should be recognized that counter-cyclicality has been embedded into the test to a significant degree. And finally, it will be important to work out the interplay between the final Basel III floor and the Collins Floor here in the U.S. But as such, we still believe that 11% to 12% capital remains an appropriate through the cycle range for us. However, we are bound by CCAR and we are bound by the volatility embedded in the test. And so at this point in the cycle, we expect the company will run towards the top end of that range. This would be consistent with continuing to support overall modest RWA growth and also support payouts of about 90% plus this year consistent with analyst estimates and obviously continuing to be CCAR results dependent. Having said that, repurchasing shares, as you know, is at the bottom of our capital hierarchy in terms of uses. First and foremost, we will invest in our businesses, in our clients, our communities and our employees.

So then rounding out the capital conversation with capital allocations to our businesses on the next page, on page 13. A reminder in the chart on the bottom left that we have a multi-metric capital allocation framework that incorporates five key capital measures reflecting resource scarcity. And one of the benefits of this framework which we implemented in 2017 is that it is dynamic and flexible and will evolve with our changing capital position.

And so, while we continue to believe in the importance of risk-based capital and a return on risk mentality and as such this does remain a foundational pillar in our framework. This year in order to recognize the firm's most binding constraints, we have increased the relative weights ascribed to standardized risk weighted assets and performance under stress.

And given that we are not expecting to be at 11% CET1 in the near term, we are increasing the line of business capitalization rate used within the framework. So, if you look at the right hand side you can see that overall firm retained equity is relatively flat year-on-year but the consequence of these changes is to reduce the excess that was previously retained in Corporate and to allocate more to the businesses. Principally, the CIB driven by stress as well as growth and the Commercial Bank and Asset & Wealth Management due to the increased emphasis on standardized risk-weighted assets.

And while there is a healthy mix of both science and art in this framework, overall we do believe that these incentives properly align with the overall firm's objectives and ensure that decisions we're making today are informed by an appropriate forward-looking view of their risks and their costs. And while the overall return on tangible common equity target for the company remains unchanged at 17%, accordingly the CIB has revised their medium-term target down to 16% and Asset & Wealth Management down to 25%-plus which are still healthy return targets for these businesses.

Next, let's get to the forward-looking financial performance view. We'll start with net interest income on page 14. When looking at the journey on net interest income, it's instructive to start with 2015 as a baseline given that it preceded the normalization cycle and we had \$45 billion of NII in 2015. In 2019, we're expecting NII of \$58-plus-billion. That's a cumulative increase of more than \$13 billion over four years, including about \$2.5 billion this year which is driven by the annualization of higher rates delivered last year as well as continued net growth.

And if you look at the drivers and the walk on the page, you can see that the combination of higher rates and balance sheet growth and mix have been very significant. In fact, between them delivering core net interest income growth of close to \$17 billion. But importantly, I do note that we have benefited to-date from deposit reprice lags which we would expect to give back over time. So given that, what do we expect from here? Moving on to the next page.

Starting on the left with our 2019 outlook of \$58-plus-billion, and looking forward to a steady state which might be a few years away. You can see that we may end up in about the same zip code between \$58 billion and \$60 billion. But the journey to get there will likely be interesting. In the walk, first in green, time is definitely our friend and we've previously said that balance sheet growth and mix have become a bigger part of the story. And when combined with the compounding effect of higher long-end rates, together those could drive up to \$2 billion of incremental NII each year. But against that, our current run rate still incorporates meaningful deposit repricing lags relative to our through the cycle assumptions.

Now we believe that lags are just that, and that most or all repricing may work its way through by the end of the cycle. But the timing of that will matter. And reminding you of the chart from the top right of page seven and just to help you, here it is, top right of page seven. You can see that repricing meaningfully accelerated after the last hike in the last cycle. And you can see that in that cluster of dots up on the top right. So the only thing that we can be certain of is it won't be linear, and further in green there is still an open question as to whether we will hit those through the cycle repricing assumptions at all or whether we'll be better. And that question may be even more pertinent if in fact the cycle has effectively ended with Fed funds at only 2.5%.

So that is all to say that the path of net interest income over the next few years is very dependent on the pace and the ultimate level of repricing. And so on this page we're showing just the illustration three paths and there is a clearly a lot of distance between them. On the one hand if there is more room to run this cycle, if there are more rate hikes in our future and if today like in the past, the most significant repricing happens after the end of the cycle then you may follow a line that's closer to the top line on this page. But on the other hand if we are potentially toward the end of the cycle, and the Fed is on pause and that's more like the implied curve then we could be in a grind higher scenario something more like that gray line in the middle. And without discounting the possibility that repricing could accelerate in the short term, we would think that the bottom line is a lower probability outcome.

But in all cases on that top right, the case higher, you can see that we still have the open question about what the ultimate level of deposit repricing will be. And here too it is worth reminding you that steady state net interest income of between \$58 billion and \$60 billion at the end of this cycle is completely consistent with what we have been telling you with what we told you last year and at previous Investor Days. So in many ways, although the path will be interesting, there's nothing new to see here either.

Spending a minute then on non-interest income on page 16. And of course no good ever comes from trying to forecast fee revenue over a short timeframe given the obvious impact that markets revenue and market levels can have. But if you look through that you can see in the walk on the page that volume driven growth in 2018 of about 5% was the most material driver last year.

And if you look at the bottom of the page, you can see that core business drivers do continue to grow consistently. Daniel will give you guidance on fee and trading performance later, but the point on this page is that market independent, you should expect underlying non-interest revenue to grow solidly at about a 3% CAGR over time.

Next then, we'll move to expense on page 17. 2018 adjusted expense was \$63.3 billion with an overhead ratio of 57%. You will recall this time last year that we talked about the fact that we saw a significant opportunity to accelerate and increase investments across the board in order to drive long-term growth and profitability and a differentiated customer experience and we continue to believe that that's the case. You can see on the walk that investments remain the biggest driver of year-over-year expense growth in 2019.

From the left, first, you can see we have a net incremental about \$600 million of new technology investments. But importantly, we're seeing the benefit of previous investments rolling off and on a gross basis, we are able to decision that and reinvest that plus into new opportunities and you'll hear my partners later talk about those opportunities. I can characterize them as broadly reflecting our continued focus on digital, on customer experience, on resilient and scalable infrastructure and obviously cyber security and controls. And this brings our total technology spend for the year to about \$11.5 billion and it's now split about equally between run the bank and change the bank.

Moving on we have \$1.6 billion of incremental non-technology investments this year driven by a combination of consumer marketing, of continued front office hiring, of new branches entering new market and this year expensing the demolition of 270 Park Avenue.

Next you can see revenue related growth. And to be clear here, these are expenses for which you can draw a direct line between each incremental dollar of expense and a dollar plus of revenue. The largest driver of which is auto lease depreciation. Finally, of the remainder the biggest change is the impact of lower FDIC fees this year, which brings us to a total outlook for adjusted expense in 2019 of less than \$66 billion performance dependent. But importantly, underlying this walk at the grassroots level, we continue to operate with discipline delivering core efficiencies which allows us once again this year to self-fund broader underlying growth, think about more households, more accounts, more transactions.

And while it's not on the page, just a moment on the forward trajectory for expense beyond 2019. We feel really good about the investments that we've made over the last several years and we will always take a long-term view in our investment agenda. However, we do expect the cost curve to flatten out from here and do not expect net incremental investments to be higher over the next couple of years.

Let's move to credit then on the next page on page 18. Starting on the left hand side with 2018 actual net charge-offs which were 53 basis points for the firm, a little less than \$5 billion of charge-offs substantially all driven by card. Today, we are not seeing signs of fragility in our portfolios and so we expect 2019 will look very similar to 2018 with charge-offs of less than \$5.5 billion which are higher year-on-year but on growth.

Importantly, we expect card charge-off rate this year to be relatively in line to the strong performance we saw last year albeit that over time we would still expect the card charge-off rate to tick up modestly as expansion vintages do become a greater portion of the portfolio.

Before we leave credit, a moment on CECL, the current expected credit loss framework on page 19. After decades under today's loan loss accounting regime, the U.S. will be implementing a new life of loan reserving standard at the beginning of 2020. Based upon what we know today, our central case for credit, as I said, is to remain relatively benign over the next couple of years. And based upon that outlook our current implementation estimate is to increase reserves by about \$5 billion plus or minus with the largest driver being Card.

In Card, today we have a little over \$5 billion of reserves. And remember that we are currently reserving for about 12 months of losses while the weighted average life of revolving balances is closer to two years. So obviously, the modeling is considerably more complicated than that but about two times our current reserves seems reasonable.

And while there will be other pluses and minuses across the remaining portfolios, in these cases current reserve estimates including qualitative elements are much closer in terms of their coverage today to CECL estimates.

So rolling forward, if 10 months from now when we implement, if then recessionary indicators are indeed flashing red then obviously our estimate of lifetime losses would be higher. And to the right you can see a range of adverse outcomes implying a larger implementation adjustment of up to \$10 billion.

With respect to the capital implication to CECL, there is, as you know, a four-year transition period for the implementation adjustment, which is helpful but only to a point. And to-date, there's no proposal on permanent capital relief. In practical reality, a lifetime standard will likely create significantly more stress or said, a higher capital drawdown in the first few periods of a real or a simulated downturn, which when taken together with higher launch point reserves, could mean that even in benign periods, it has the effect of requiring permanent capital to support an effectively stressed outcome.

So while it is definitely true that cash flows haven't changed implicitly the economics might have. And this could have unintended consequences for the pricing or availability of credit at potentially the worst point of a cycle.

So bringing all of this together then, with the medium-term outlook for the performance of the company on page 20. So we did deliver a 17% return on tangible common equity in 2018. And from here, we've already talked about the fact that risks are more symmetric. So there is of course a wider range of possible outcomes as you look forward over time. However, if the environment remains constructive, if Fed policy stays relatively accommodative and credit benign, all of which we relatively expect, we may over earn against our target for the next few years. But notwithstanding, 17% remains our base case over the medium term. So the good news is we're there, we're at 17% and we are showing steady growth across our businesses growing dollars of SVA and we expect to be able to sustain that level absent a significant change in the environment.

So, in conclusion, we delivered record performance in 2018 on many levels and are delivering significant shareholder value with peer-leading returns. Customer satisfaction is high across all of our businesses and we continue to invest and we continue to gain share. Years of relentless execution hopefully give you the confidence that we will continue to deliver strong financial results no matter the macro environment. But as I said, based upon what we can see today, we do expect to continue to deliver 17% returns over the medium term. So, with that, I have a little bit of time, it's not like me to go slow, I have a little bit time for questions.

QUESTION AND ANSWER SECTION

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Mike, right here.

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Mike?

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Mike Mayo, with Wells Fargo Securities.

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Hi, Mike.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Just to follow-up on the 17% ROTCE target. You've said you're gaining share, you're making investments for more growth. Credit quality is still good, efficiency is getting better, it seems like it's all going right, but you keep the ROTCE target at 17%. Why not increase that?

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Yeah. So, I would tell you that as we sit here today, when we have an outlook that is more symmetric, I mean interest rates being one example, but not the only example and where we are arguably later in a cycle, it is definitely the case that if things continue to be constructive and we have no reason to believe that they will change that there is a case to earn higher than that over the next year or two or maybe even longer. But the further out you go, the less confidence we can have that we won't see the end of the cycle.

So, we like to take an appropriately sort of conservative view and say almost notwithstanding unless we see something that is significantly different, we ought to be able to continue to deliver returns at that 17% rate which we should take a moment to celebrate that, it's the first time, I haven't had to put a walk on the page to get there because we're there and we are growing our businesses here pretty steadily. So we are growing dollars of shareholder value even if we were at that 17% return over the course of the next few years. But we're at that point in the cycle where you might think we'll over earn for a period, maybe we will, right, but we're not going to sort of run the bank that way.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Betsy, you want to take?

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Yeah, I can take.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Hi. Betsy Graseck, Morgan Stanley. Marianne, question on your comments on the securities portfolio, you talked about how the decisioning might be a little bit less loans, more securities, could you give us a sense as to what the dynamics are around that decision...

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Yeah.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

... and what type of securities you're talking about, is it more duration risk, is it more credit risk and are you going for yield there?

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Yeah, so I would – I think maybe the broader point is that if you have – if you believe our industry expectation that deposit growth is going to be, call it, 2% and we might do a little better than that. But if you believe that then naturally almost regardless of whether you say it's loans or anything else, your sort of interest-earning asset growth is going to be meaningfully lower year-on-year. So at or less than 5% in totality. And then if you look at the fact that because deposit growth is slowing because naturally, we have less incremental dollars of deposit liquidity to put to work and so when you look at that now and compare it to the demand we have for loans and the spread we could earn on investment securities, on a completely standalone basis, you could favor a security over a loan.

Many, many loans, we don't think of on a standalone basis, if they come – think about that client ROE concept that we talked about historically, where we look at the franchise value in totality of the relationship we have and we're also willing to invest through the cycle in relationships, so not at every point in the cycle does everything have to be accretive. But on a purely standalone basis, loan only business can start to look less attractive and it could be a pure swap from, take the example we have on the page here, just conceptually, is a mortgage loan on our balance sheet compared to a non-agency RMBS in our portfolio. And so, it could be recycling the balance sheet for sort of just basic capital efficiency and liquidity efficiency, a loan on our balance sheet that is a high standardized RWA and a full drawdown on liquidity compared to a security that's half of that in RWA with a reasonably modest haircut for liquidity.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Glenn, over there.

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Hey, Glenn.

Glenn Schorr

Analyst, Evercore Group LLC

Q

Hello. Glenn Schorr, Evercore ISI. You talked about the importance of the repricing cycle on...

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

Yeah.

Glenn Schorr

Analyst, Evercore Group LLC

Q

... on the net interest income walk and therefore every other target walk. Maybe can you talk about how much JPMorgan has done, is doing that can influence the repricing cycle versus just being the victim of the competitive environment? Thanks.

Marianne Lake

Chief Financial Officer & Executive Vice President, JPMorgan Chase & Co.

A

So I would say the best thing that we can do to influence and we don't really think about it that way. But the best thing we can do is to do a great job for customers because if you think we've been talking for years now about what's the case for lower versus higher? Well, the case for lower repricing is all the other value you're adding, right. So it's the customer experience, it's the digital experiences, it's the integrated products and services, it's rewards and benefits more broadly, it's convenience, it's brand, it's all of those things.

And so, the best thing we can do to end up in a different situation is just to continue to invest in that kind of ecosystem where there's more and more and more value for our customers outside of rate. And so rate becomes increasingly less of a significant driver. And I wouldn't say when we think about it, we think about customer behavior drives that outcome. And so what we can do to drive customer behavior is to make this the best place that they want to be and where they want to keep their operating and non-operating deposits. So that's how we think about it.

I'm out of time. I will be here all day. So thank you very much. And I welcome Daniel and his team to the stage.

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

Okay. Good morning. Thank you all for being here. This year, I'm also joined by my partners, Takis Georgakopoulos, Global Head of Wholesale Payments; and Troy Rohrbach, the Global Head of Markets. So we are going to cover the following today in the next hour.

So I will talk about financial overview and give you a brief update on each of the lines of business. Then, Troy will cover some specific areas in markets, including the progress that we have made in the Equity division and our vision for the future. We'll talk about the impact of electrification, with particular emphasis in the Fixed Income business. And then, we'll talk a bit of the client franchise.

So then Takis will talk about the Wholesale Payments business. We recently combined all our Wholesale Payments assets, so Chase Merchant Services, Treasury Services and Commercial Card. Takis is leading that effort reporting to Gordon and myself. And then, finally, we'll come back, we'll talk a bit about the financial outlook, a bit of an idea of the strategy going forward and give you the color of what we see for the first quarter of 2019.

So we discussed our strategy over the last few years to be global, to operate on scale, to be complete and diversified. That has produced a good performance on returns that allow us to invest in the franchise. Last year was very, very strong. We have record revenues, \$36.4 billion, at record net income at \$12 billion. We have record revenues in the Equity division, in the Banking group, including in M&A. So we have delivered, over the years, very strong returns; and last year, was 16% on the \$70 billion of capital.

So when you look at the components of the business, so you have the Investment Bank, Markets and Investment Banking, we have very stable returns over the year and probably best-in-class returns as well. And then, on the Transaction Banking, TS and Security Services, we have a couple of years in 2015 and 2016 where the very low level of interest rates combined with the work that we were doing in stabilizing the platforms and improving our client experience and client satisfaction force us to slow down the growth of the business.

But that work is all done now that interest rates are going up – or have gone up and growth is back. So we have delivered 16% return on equity in 2017 of those combined businesses and 20% last year. And this is not just about interest rates going up. That will explain roughly 60% of the improvement. The other 40% is pure business growth.

Now, into expenses. So we discussed with you in 2014 our expense management program. So the target was to go from \$22 billion of adjusted expenses at the time to \$19 billion. The \$19 billion was achieved in 2016 and pretty much maintained in 2017. Last year, expenses gone (sic) [went] up by \$1.3 billion and these are the reasons. So \$500 million is related to growth in revenues. And particularly it's all driven by volume-driven transaction cost, it is related to other items as well including paying for performance in compensation. So let me point it out that the comp-to-revenue ratio has been stable from 2017 to 2018 at 28%.

Next column is additional investments in technology. This number is a net number. When you add to that number the roll-off projects that we finalized last year and we reinvest that talent into new projects and we continue finding efficiencies in the technology organization, the amount that is really invested in new projects in technology is around \$800 million.

So then non-tech additional investments, an extra \$300 million. There are several items here. One of them is Brexit. We are getting prepared. We have some expenses in 2018 and we'll have some more in 2019.

We appointed last year Mark Leung to run our China franchise. He was the Co-Head of Equities, the Global Division of Equities. And now, he is fully focusing right in China.

Clearly, we are working in the expansion there. We did a very good job in China over the years. Our top line in China-related business has gone up almost by 50% in the last four years, but we think that there is a lot of more growth going forward. So that takes us to \$20.7 billion in expenses in 2019.

So going to return on equity, in 2017 we delivered 14.5% return on equity. So going into 2018, so increasing revenues has contributed by 130 basis points, particularly driven by a very strong performance in the Equities division, Security Services, Treasury Services and Banking.

And in Fixed Income, clearly, it was another tough year where the wallet has gone down by 10%; our revenues remained flat by increasing our market share. So rates – or increasing rates provides 80 basis points of tailwind. We already talked about expenses, a headwind of 170 basis points. And then, tax reform gives us 110 basis points to deliver close to 16% return on equity on \$70 billion capital last year.

So let's talk about the progress in the franchise across businesses. Our market share from 2014 to 2018 and growth at CIB franchise was increased by 160 basis points. That is moving from 7.3% to 8.9%, included in the 160 basis points, 50 basis points in 2018. And when you go to the right-hand side of the page, I will drive your attention to the blue part of the circle. So we use Coalition here that divides the Corporate & Investment Bank franchise in 24 lines of business. In 2014, we were the leader, the number one in 8 of them; last year, we were the number one in 16 of them. So we doubled it.

And when you think about what is the main driver of that increase in performance on market share is particularly – the bulk of it is in markets across Equities and Fixed Income and the progress that we have made in those businesses.

Now going into the lines of business, so starting with Investment Banking. The world of Investment Banking has been relatively stable in the last five years, but our market share has grown from 8% to 8.7%. And as Marianne mentioned, we've been increasing market share in all the regions: 40 basis points in America; 90 basis points in EMEA; and 110 basis points in Asia.

And then, on the right-hand side of the page when you think about the different products, M&A, a wallet that has been growing substantially in the last five years has been accompanied by the substantial increase in market share. You may remember that we discussed in the past that a portion of our investment plan was to add senior bankers in areas or industries where we felt we have some weakness or in regions; and we have done that. Clearly, the results are very clear.

So debt capital markets, a very stable wallet over the year and a very stable market share for us. This is a tough business as the cost of participating in the revolver facilities of different companies is going up, and then companies have to reward their banks that participate in those and tend to appoint more book runners in each transaction that we do. So it's a very tough business. We've been number one all along, and we'll continue to do so. But the market share there hasn't increased.

In equity capital markets, we have the last three years of good business, but a bit of a challenge in the wallet. So the average wallet in the last three years has been lower than the wallet in 2014 and 2016, but we sort of counterbalance that by an increasing market share particularly last year at 9.1% from 7% in 2014.

So this is a great business. Carlos and his team have done an amazing job here. We think there is still upside here and we will continue to selectively add banking talent as we did in the past in areas where we believe is necessary.

Now, a brief summary on markets. So our market share in markets from 2014 to 2018 has gone up by 280 basis points, including 90 basis points last year. The wallet, top left of the page – the wallet in Equities has been stable over the year and our market share has gone up from 7.9% to 11.2% when you think about – and it's not just in one particular area of the business, it's all across; it's in cash, it's in prime, it's in financing and it's in derivatives. So Jason and his team have done a great job here to really take us to this point, and we think that there is still more to do.

Fixed income, in 2014, we had 9.2% market share and last year we had 11.9% market share. So the wallet has reduced to \$96 billion from \$118 billion in 2014. So if you want to be more depressed, if we start the series in 2010, so the wallet was \$160 billion and our market share was 8.6%.

So it is a challenging business for the industry overall, but not so much for us. As you look at the bottom right-hand side of the page, so our marginal return on equity in both of these businesses is very high, but also the fully loaded return of both of them in FICC and Equities has been very good. It is like something between 12% to 18%. And in Fixed Income, it's been in probably low to mid-teens and probably a very strong year like 2016 that produced 18% return on equity.

So at our scale the wallet and continued growing market share, the wallet hasn't been too much of a challenge. Although we'd prefer the wallet to grow, so it didn't. But it's a perfectly valuable business. It's very important for our clients. We were committed in the past, and we will continue to be committed for those businesses in the future.

So now going to Treasury Services; and the view here is that portion of Treasury Services that gets reported in the Corporate & Investment Bank. So revenues have grown from \$3.6 billion to \$4.7 billion, a 14% CAGR; and expenses, they've been largely flat. So the revenues in this business, two-thirds of the increase is related to increase in rates; the other third is pure organic growth.

On the expense side, though expenses have been flat, it doesn't mean that we haven't invested. We increased our head count in sales, product innovation by 20%. We also increased our investment in technology, change the bank technology by 15%; and the increase in those investments is purely funded by operational efficiencies.

On the right-hand side of the page, we have the deposits picture. Deposits have been growing in a CAGR of 7% overall; and operating deposits, they have grown at 9%. So very strong performance. On the bottom of the page, corporate deposits have grown at 6% and FIG deposits at 8%.

We discussed in the past that a lot of the focus of this business was to grow the international business without really discounting the U.S. business, but we are already a leader here. So when you think about where deposits have grown, it's essentially outside the U.S., in EMEA, Asia Pacific and Latin America.

So I'm really very excited about the future of this business. So it's a very fragmented wallet. When you look at the TS business across the Corporate & Investment Bank and the Commercial Bank, we have a global wallet share in the neighborhood of 6%, 6.5%; very fragmented overall.

And when you think about the amount of investment in technologies that we have the ability to invest, our great progress in cyber and the fact that we can put all this wholesale platform together, I really like our hand in terms of growth for this business going forward because I do believe that the industry in this space will tend to consolidate, rather than remain as fragmented as it is today.

Security Services, page 8. We have been executing a multi-year strategic investment program here to deliver better products and services to our clients. So Teresa runs this team; she has done a very good job with her team. And we are particularly focusing on a bunch of areas; first, ETFs. We're focusing growing in emerging markets. We believe that it makes sense to have a scalable middle office outsourcing platform and we are building it. We are focusing on the alternative space that we didn't do much of that in the past.

We are working in replatforming all our infrastructure and clearly creating a great client experience, and that has delivered. Assets under custody from 2016 to 2018 has grown 13%. Revenue has grown 18% from \$3.6 billion to 4.2% (sic) [\$4.2 billion]. And this number, the component of rate increase explains half of the increase in revenues; the other half is organic growth. And our operating margin has gone up by 9 points.

So this is also a very strategic business. If you think about what the Asset Management industry is going through, well, passive versus active playing out and a contraction in margins, there is no doubt in our mind that Asset Management will have to outsource more and more of the functions that they are doing today. So you want to have a platform that is able to cater for that in a very scalable way, and that's exactly what we are building here.

So the last page of the section, I want to talk a bit about technology. I will not focus on the top of the page. Essentially, those are the areas of the main things that we're investing toward. You will not be very surprised about that. The key is, here, how do we pay for this because we need to go faster and faster. There is no doubt Lori and her team have done a very good job finding more and more efficiencies, essentially creating a better output for every dollar spent in the technology organization.

But we need to do more. I mean the way that we think about it is in the following way, that are the boxes at the bottom of it. And we have this program that we are working on and we've been working on for a period of time, where, first, about including improving the efficiency of our software engineers. And this is about giving tools to our managers to understand why certain developers, a team of developers produce more than others.

And this is not necessarily have to be because the talent is better in one place than the other, though it may be one of the reasons. It's about the obstacles that we can put in play, the way that they generate their – they develop their technology, so the bureaucracy that we may be facing. So we are really going very deep into the organization to understand the productivity of small group teams in order to really address those issues and improve.

The second one is about platform simplification. And this is about driving agility, modernizing infrastructure including the adoption of cloud, internal or external. I (sic) [We] have a consistent architecture for data and applications that will avoid duplication and increase usability going

forward. We need to avoid building everything from zero to 100 every single time. We want to really use what has been developed and each developer build on top of it, rather than going from zero.

So these will drive results. I don't know is there is 10% more here or 40% more; what I do know is it is not zero. So if we want to win going forward, we need to really address this issue and really deliver a lot more for every dollar of expense in the technology organization that we are delivering today, and we have made progress and there is a lot of more progress to come.

So I will stop here. And now, we go to Markets with Troy.

Troy Rohrbaugh

Head of Global Markets, JPMorgan Chase & Co.

Good morning, everyone. Daniel has discussed Markets overall, so for the next 15 minutes I'd like to cover three topics in more detail. First, a deeper dive into the performance of our Equities business with the focus on Cash Equities and Prime Finance; electronification in our FICC business focusing on the drivers, pace and impact on our franchise; and, finally, highlight the growth of our client franchise across Markets.

The Equities franchise is reaping the rewards of our multi-year investment in technology, talent and execution capabilities. These investments have led to market share gains in all Equities products across every region during the past four years. As you can see on the left-hand graph on page 11, since 2014 we've gained market share by over 330 basis points, more than our top three competitors combined. These gains have also begun to accelerate, with 130 basis points coming in the last year alone.

On the right-hand graph, it shows that 250 basis points or greater growth by major products: Cash, Derivatives and Prime. Also, each major region has experienced 200 basis points or more of growth. All of this has allowed us to close the overall wallet gap on our largest competitors by \$1 billion.

We've maintained the number one equity derivatives business since 2015. This remains a core focus of our business, as indicated by the market share gains. But, today, I want to focus more on the performance of Cash Equities and Prime Finance.

Despite a shrinking industry wallet, our revenue has grown since 2014. As you can see on page 12 on the left, our revenue growth in Cash Equities has been 7%, versus down 6% for the industry wallet. The acceleration in revenue growth from 2016 to 2018 is driven primarily by Low Touch and Program Trading.

We've consistently invested in the technology and execution capabilities needed to improve our Low Touch business. This, combined with our improved global coordination across Cash and Prime, has yielded an average of 25% growth per year in Low Touch.

This focus on Low Touch has not been at the expense of our other businesses. In particular, Program Trading has experienced 30% average growth over the past four years. In the case of High Touch, where absolute revenue has dropped, we've still been able to gain share on our largest peers.

As you can see on the right-hand side of the page, our growth in share of volumes has been driven primarily by Low Touch and particularly from our investments in EMEA and APAC. Going forward, we will continue to invest across all aspects of our cash franchise.

As many of you remember, our original Prime business was a U.S.-centric cash business inherited from Bear Stearns. We undertook a systematic multi-year investment plan to build out the overall offering, most notably international products, Synthetics and Direct Market Access capabilities. These efforts are bearing fruit. We've been able to on-board clients that have historically not been interested in our more limited platform. The pipeline of new business is very robust across all geographies and all products.

As mentioned in the previous slide, we've also developed a much more coordinated approach across Cash and Prime. These efforts and investments have resulted in record balances in revenues in all regions and products. As you can see on the left-hand side of the graph, while maintaining our strong North American client footprint, we've significantly grown balances in EMEA and Asia, 15% and 36%, respectively. Overall non-U.S. balances have grown from 22% to 32% in 2018.

On the right, you can see as a result of the investment in our Synthetics product in international growth, our Prime revenues have grown by an average of 13% per year over the last 4 years. At the bottom on the right-hand side, we're showing an improvement in our balance sheet ratio, down by 12 percentage points over the last 5 years. This lower percentage is driven by two things: one, optimized inventory management; and, second, the growth in Synthetics. The latter has offered more netting and off-balance sheet opportunities, thereby improving our bottom line returns.

However, despite this improvement, our balance sheet footprint will remain large due to both the overall size of the business and our large North American Cash product. Again, going forward, we will continue to invest and focus on international growth and most notably in APAC and Synthetics.

To conclude on Equities, while we hope to continue harvesting the benefits of our multi-year investments, our high-level strategy remains unchanged. We will invest in products and technology. Specifically, we are committed to increasing the adoption of advanced analytics and AI across our sales and trading functions. We will expand scale and reach. Scale will continue to be a major differentiator in this business.

We will look for specific opportunities at a granular level by product and by region to ensure we have the largest diversified client base possible. And, finally, we will continue to enhance our coverage and sales service framework. We believe high-quality client service is a critical component along with scale and execution. Successfully executing on this strategy is the key to our Equities franchise.

Moving on to electronification in FICC on page 15. We believe there have been two primary drivers. The first being organic. For some years now, we've continued to see client demand for choice, transparency and efficiency. As a result of that, for some asset classes, electronification has been a longer term trend.

For example, in FX cash, increased electronification has been occurring for over 20 years. That percentage is beginning to stabilize at the moment, but it is still a long-term trend. However, this need for more sophisticated tools to manage high levels of electronification is still very much increasing.

Clients are deploying much more sophisticated tools, specifically algos. As you can see, in the last year alone, our algo-driven FX execution volumes are up 44% despite an overall growth of only 8%. This is creating new opportunities for us, and I'll come back to that in a minute when we cover Algo Central.

The second is regulatory change. We've also seen in many cases regulations act as the primary driver for electronification, first with Dodd-Frank here in the U.S. and most recently with MiFID II in EMEA which has caused higher levels of electronification in asset classes like Euro and Sterling swaps.

We've seen an even faster growth in RFQ, or Request for Quote, to one, which is an indication that clients are meeting regulatory demand and using electronification for efficiency. But this is step one and a crucial building block for greater electronification of those asset classes.

We continue to invest in the most sophisticated execution tools and we are leading with our investment in Algo Central. As electronification continues to deepen across asset classes, especially in relatively small ticket flow businesses, we believe new tools such as Algo Central are crucial to our clients.

Algo Central is currently available in FX, but ultimately we will roll it out across all asset classes. Its key features are; the ability to access all master orders at a single point of entry; the ability to apply cutting-edge analytics across pre-trade, trade and post-trade; you can manage multiple orders and strategies simultaneously; and you can amend these strategies on the fly. It's available not only on our JPMorgan Markets proprietary platform; it's available on approved third-party platforms as well. This is just one of the many tools we are developing internally, and we're looking to offer them across asset classes to our clients.

Three years ago, we shared with you during Investor Day our expectations for electronification across some of the FICC asset classes. We wanted to revisit that and do a quick mark-to-market. So on page 17, on the left, are our expectations from 2015. Surprisingly, we were totally wrong in many cases.

In the middle are the current levels of electronification. We've highlighted four areas: interest rate swaps, FX cash, FX options and EM local currency bonds. In the case of IRS, it's been much less than expected. FX cash has been broadly in line with our expectations. FX options, a non-linear product, has been much more than we expected. And in the case of EM local bonds, there's been very little to no electronification, which came to us as a big surprise when you compare it to developed markets.

The point of this slide is you cannot predict the pace of electronification. You simply have to invest across the full spectrum in order to be prepared. So our expectation is all products will continue to broadly electronify at an ever increasing pace, and we will invest accordingly.

So we've also discussed the effect of electronification on the revenue of markets, particularly FICC. While there has been a clear headwind, it has been broadly offset by the gains in market share that Daniel mentioned. We expect further electronification to continue to be manageable from a revenue perspective.

Finally, moving on to clients. We consistently maintain a strong and leading client franchise across both institutional and corporate clients. Within the institutional client segment, we've been consistently ranked number one over the past five years. As you can see, we have a balanced and well-diversified franchise with both institutional clients and have gained market share across all segments of this category.

Asset and Wealth Managers are historically a strong client segment for us, yet we still managed to gain 270 basis points of wallet with this client segment since 2014 and remain ranked number one in the segment. The increased costs, AUM changes, fee pressure and evolving liquidity needs of this client base has allowed us by close coordination to build and strengthen our partnership with them, which has enabled us to gain share and solidify our number one ranking. Additionally, as operation alpha becomes more important, our ability to bring integrated solutions across markets and Security Services will be a differentiator.

Historically, we have underperformed relative to our largest peers in the hedge fund sector. We've been able to gain 220 basis points here since 2014 and are now ranked second in the category. We've also gained 140 basis points with banks, insurance companies and our public sector clients since 2014, and remain ranked number one in this segment as well.

Beyond institutional clients, JPMorgan has simultaneously grown its market share with the corporate client base gaining 120 basis points of market share with corporates since 2014. We will continue to partner with the Global Corporate Bank and our Treasury Services franchise to capture more opportunities, particularly in EMEA and Asia.

Our clients are transforming, consolidation, margin compression and the shift to passive understanding these evolving challenges of our clients is critical. We are prioritizing investments to make sure we stay ahead of our clients' needs, particularly our ability to deliver top quality end-to-end digital experiences.

Capital and risk solutions will increasingly require next-gen analytics, enhanced client interactions and best-in-class execution. Our investment agenda prioritizes all of these. I won't go through them, but the examples are: we will continue to deliver best-in-class analytics; provide the most sophisticated execution tools; and, finally, deliver an industry-leading client service model.

Thank you very much for your time this morning, and I'll turn it over to Takis.

Takis Georgakopoulos

Head of Wholesale Payments, JPMorgan Chase & Co.

Thank you, Troy. I'm going to spend the next few minutes talking about our current position and our vision on Wholesale Payments, which, as Daniel mentioned, brings together the largest transaction bank in the world, Treasury Services, with a daily processing volume of \$6 trillion; with Merchant Services, a leading U.S. and European merchant acquirer with more than \$1 trillion in annual processing volume together with our global trade business and our U.S. Commercial Card business.

We have a great starting point. These businesses collectively generated more than \$11 billion of revenues in 2018 across our CIB, CB and CCB franchises, an increase of 30% over the past two years. And our goal as the only bank that can bring together an in-house Merchant Services business and the Treasury Services business is to deliver a unique wholesale value proposition to our client. And I'm going to go through some examples later on.

We serve the entire suite of clients of JPMorgan from the very large to the very small, including 80% of the Global Fortune 500, including tens of thousands of small business and middle market companies in the U.S., and including almost every major bank, insurer and asset manager around the world.

Our aspiration is to deliver an integrated set of client journeys for our clients across sales, on-boarding, pricing, servicing; and at the same time, to bring together technology and operations even more than before across those businesses to generate even higher scale benefits.

Focusing on Treasury Services for a minute, Daniel spoke about the CIB portion. This page shows the firm-wide view, including revenues across CIB, CB and CCB. In 2016, our revenues were \$6.3 billion. In 2018, that number was \$8.8 billion, an increase of 40%. And when you look at our largest competitor, their revenue growth was 25%. That difference between 40% and 25% translates into an \$800 million swing, which is what took us from the number two position to the number one position.

And while our revenue growth was supported by rates, more than a third for CIB clients was organic growth, translating into higher balances, higher fees and higher FX and we gained market share in every customer segment in every region. That said, there is still a lot of upside in that business both because, as Daniel said, it's very fragmented, but also because when you look at the CIB portion, which is the dark blue, and compare it to the largest dark green bar on the page, there is still a \$1 billion gap between us and number one on the CIB side, most of it having to do with corporate clients and their business outside the U.S. And we expect half of that opportunity to be addressable over the next few years.

In terms of our Wholesale value proposition to our clients, we focus on what we are going to deliver to them and what is the underlying infrastructure that will allow us to deliver it efficiently. In terms of what we deliver, we have three key pillars. We want to allow our clients to accept and collect from anywhere in the world, in any currency, including real-time payments and including wallets.

We want to allow our clients to connect to us in the way that makes sense, whether it is customized contents, whether it's APIs or, over time, whether it's open banking solutions. And we want to be able to deliver to our clients' real-time insights to help them optimize and simplify their operations.

We want to deliver that through global platforms that provide the lowest cost in the industry, complete set of capabilities and maximum flexibility to change things over time. We will deliver it with our best-in-class controls, leveraging the strength of JPMorgan around things like cyber, AML, fraud, et cetera, with the ability to customize those tools and capabilities for the benefit of our clients. And we want to deliver it with the best available technology, whether that's built in-house or through fintech partnerships. And just last year, we initiated 14 new fintech partnerships that are either live or at the testing phase today.

In terms of our platforms, in a previous Investor Day, we talked about the cornerstone of our payments platforms, Graphite and GLASS. Graphite is our global payments platform and GLASS our global liquidity platform. Both of them are multi-year investments, both of them are live today. Graphite and GLASS are live in 10 countries today, including our new Luxembourg branch, which provides 40 currencies, very late cutoff times, virtual accounts and instant payments. And we'll continue that roll-out around the world, and over time begin to decommission our legacy platforms.

Helix is our new merchant acquiring platform, which will allow us to expand our reach into Asia and Latin America, and we expect to start piloting with clients in the second half of 2019. We will continue that roll-out over time, but at the same time we are investing in our U.S. small business offering, leveraging our WePay acquisition.

These are the existing platforms. We're also investing for the future, leveraging our leadership in distributed ledger technology. We've spoken before about our IIN platform, the Interbank Information Network, our blockchain platform for our correspondent banks. This platform is live today, being tested and used by several banks. And almost 200 of our correspondent banking clients have signed letters of intent to join, and we expect more than half of them to be on-board by the end of this year.

The first application that's live on IIN allows the real-time information exchange on sanction screening question. Every single day, JPMorgan stops 50,000 payments for sanction screening and there is a manual process involving e-mails and calls, et cetera, across multiple banks to resolve those. Through IIN, these will be resolved real-time, solving a problem not just for us, but for the whole correspondent banking industry. And we have a lot more applications that we are thinking of and developing, and we will open the platform for other banks and other partners that are on the network to deliver their own applications.

We also launched our JPMorgan Coin a couple of weeks ago as a prototype, and this was done in response to real institutional client demand. And it was based on pain points that our clients had and questions like how can I efficiently move money outside of regular cutoff times, or how can I more efficiently manage liquidity at a large complex multinational company. And we think that over time the Coin can provide solutions to some of those questions.

At a more tactical level, we also delivered the number of new products over the past 12 months; and this is a sample list of some of those. We went from laggards to leaders in low-value cross-border payments. We had 18 currencies 18 months ago. We have 50 currencies today, with plans to continue to grow; that's our global mass pay product.

We are live with virtual accounts, which is one of the big innovations of the industry. We are live around the world in Western Europe, in Singapore and Hong Kong, in the U.S., in Canada, in Mexico, and with 40 currencies. And we bring virtual accounts in a way that it fully integrates payments, receipts and reporting across real and virtual accounts, making it easy for our clients to switch and generate efficiencies. And we will continue to expand our capabilities for different customer segments and different use cases.

We have more than 30 live APIs. And, more importantly, we've created the sandbox in which our clients can test away the APIs in a matter of minutes and can be live in a matter of days. And we continue to work with ERP providers and TMS providers to provide more flexibility for our clients, and we are also working closely with other partners on open banking in Europe.

We've been investing quite heavily on digitization and automation, and today 70% of our new accounts in the U.S. are opened in 70 seconds or less. We continue to invest in machine learning and artificial intelligence. We've launched a multi-language virtual assistant and AI tool for e-mail routing, but we see a lot of opportunities to continue to generate efficiencies on automation both for us and for our clients.

And, finally, real-time payments. We're very excited about the advent of real-time payments and the proliferation of real-time payment options around the world. We are the first bank to go live in dollars, euros and pounds. And we continue to monitor the industry and we want to be there in each and every market that launches real-time payment systems.

I want to spend a minute more on real-time payments in the U.S. because it's kind of an exciting new development in the United States for the first new payment system over the last 40 years, which allows secure payments 24/7/365 final in 15 seconds. We recognized the importance of that product early on, and we started investing in 2017.

We went live with penny testing in November 2017 and live with our first clients in April of 2018. We also worked with Chase, at a pilot stage, to allow individuals to initiate real-time payments through their Chase account to another bank account. By next month, we expect the full roll-out across all of our clients.

To give you a sense of the volume, in the fourth quarter of 2018, our volume was six payments a day as we were testing and learning and improving the infrastructure. In January of 2019, it was 40 payments; in February, it was 700 payments; and by May, the first full month of going live, we expect that number to 48,000 payments a day. That represents 1% of the overall processing volume that we do in the U.S. in the first month of that product going live. So we believe that there is real potential here.

I want to pause for a second here and just remind you that all of the things that we talked about across platforms, blockchain, new product development, real-time payments, et cetera, were all done by dedicated teams that were built over the last couple of years. And all of that, as Daniel said, was self-funded by efficiencies that we generated in other parts of the business.

I want to switch gears for a minute and talk about eCommerce, because eCommerce provides a great case study of how we can bring together our Chase Merchant Services and our TS business for the benefit of our clients; and I'm on page 28. On the left side of the page is the pay-in side, where clients pay for goods from the eCommerce platform. The middle is the payment infrastructure that the eCommerce platform provides for their clients. And then, on the right side, we have the pay-out, which is how the merchants or sellers get paid.

The left side of the page is the domain of Merchant Services. We are accepting all methods of payments and we continue to build our connectivity to popular e-wallets around the world, and we provide guaranteed FX rates for the merchants. On the middle, we've developed multi-currency e-wallets, one for each seller that keep funds within the client's ecosystem and allows the merchants to decide pay-out time, currency and format.

And then, on the pay-out outside, we accept all methods of payments through our global mass pay solution and, over time, more and more real-time payment systems. Because we are able to see both sides of that equation both the pay-in and the pay-out, we're able to deliver a unique set of services through the eCommerce platform. Things like integrated reporting and reconciliation, the ability to optimize liquidity through products like just-in-time funding and the ability to use the liquidity balance is generating that process to offset fees.

And let me finish with the upside. We see opportunities for continued growth in our business in every customer segment. In the middle market and small businesses, we see very large opportunities on merchant acquiring, but we see opportunities across all of our products. We believe that the solution here is to deliver a simple bundled solution focusing on a digital and simple experiences for our clients.

On large multinational clients, the answer is likely to be much more bespoke and much more consultative because each customer is different and we work very, very closely with our corporate banking and investment banking partners and we see opportunities in many segments and parts of the world. Daniel mentioned China, we talked about eCommerce, open banking in Europe. We see opportunities all over the world.

And then, on the FIG side, we are the leader in FIG payments, but we still see more opportunities. We are the leaders in global clearing. We have deep expertise in every customer segment and every region, and we continue to deliver innovation to the industry. So when I look across all three, I see a lot of upside. Over the past two years, we've grown our market share of the overall revenue pool of the industry by about 90 basis points. We think we can continue to grow at that same pace over the next three or four years.

Let me stop here. Thank you very much, and I'm going to turn it over to Daniel for closing remarks. Thank you.

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

Thank you, Takis. Thank you, Troy. So, now, we're going to talk a bit about 2019 and beyond and sort of discuss our priorities going forward. So, first, on expenses from 2018 to 2019, so \$20.7 billion and we are expecting to finish this year around \$21 billion. So a \$100 million of that is revenue-related volume-driven transaction costs. And then, into technology, we have planned net investment of \$300 million, but in overall investments including roll-offs as we discussed before and efficiencies of \$900 million in new projects in technology.

Non-tech investment, a couple hundred million dollars here. They are driven exactly by the same items that we discussed from 2018. And then, we have \$400 million of tailwind that is our share of the removal of the FDIC surcharge.

So before we go to the next page, so let's talk about the next couple of years, after 2019, where we expect net investments in technology and non-technology to be flat. So just to be precise, zero net investment. It doesn't mean that we are not going to invest; what it means is that we are going to finance those investments by efficiencies and reinvest the freed up of talent that comes from roll-offs. And this is very – on the technology side is very related to the page of efficiency in technology that we talked [about] a minute ago.

So, now, on returns going forward. So last year, 2018, page 31, we've produced close to 19% (sic) [16%] return on equity. Going forward, in the medium term, we are expecting a 300 basis point increase on return mainly coming from increase in pre-tax income. So our capital, as Marianne mentioned, is going up by \$10 billion from \$70 billion to \$80 billion. Three quarters of it, 75% of it is related to the recalibration of the firm multi-metric framework for allocation of capital and the increasing severity in our CCAR stress. So this is more capitalization for the existing business.

So we do have an increase of \$2.5 billion of capital related to growth. So, now, on the last column, the 50 basis points, we have this headwind which is essentially related to taxes and the temporary effects of related tax reforms are gone and this as we move through the converge in long-term expectations of tax give us a small headwind of 50 basis points driving us to reduce our target to 16%. And it's only 100 basis points because some of these items we didn't plan for that in the past.

So I forgot to mention, in the 300 basis points of net income growth, that will be aligned with \$40 billion – you see in the bottom right of the page, aligned with \$40 billion of revenues and a cost to income ratio of 54%. So this will be all depending on what happens in the market in the next two or three years. Clearly, is not a walk in the park.

So, now, on some things that we see for 2019. So for Banking, if – Coalition so have done some analysis and they expect that the wallet in Investment Banking will go down by 5% or 6%; that we largely agree. So we think that probably M&A and equity will go down and probably debt will be from flat to slightly up.

So considering that our market share in 2018 was 8.7% and if all this holds true, for us to maintain flat revenues, it will require an increase in our wallet share is slightly above 9%. For markets, Coalition sees the wallet being stable across Fixed Income and Equities. But I do believe that they are – when you go granularly in the different components of this business, there is still areas where we can improve. And for Transaction Banking, TS and Security Services, the last couple of years, as I discussed, it was about increasing rates and organic growth, probably 2019 will be more about organic growth assuming that the rate story is probably finished.

So, now, let's go specifically to first quarter expectations for the Markets division; this is first quarter. So last year, first quarter was very strong and mainly driven by two components. We have the gains related to change in accounting standards; and second one, it was a very, very strong performance in markets across the franchise.

This year, our core performance is weaker, driven mainly by three factors. So we have a very tough comparison in the Currency and Emerging Markets business. It was very strong in the first quarter of last year. We had a slow start in the Equities business. And, overall, we see lower weaker client activity. So that drives us to think that our forecast for the full first quarter on a reported basis will be down on the high-teens and on a core basis will be down in the low-teens.

So now to finalize on strategy. So I will discuss with our team that the journey forward from here is going to be a little more different – more difficult than the journey that took us to the degree of success that we have today. That's why we need to be very focused. And we think about how we're focusing going forward essentially in three pillars.

First is maintaining the day-to-day discipline. This is about continue leveraging the great franchise that Doug Petno is having in the commercial bank delivering better and better services to his client base, and the same for Mary in the private bank. So continue having a great client experience and make it easy for our clients to trade with us, to have us to have a flawless execution about every lines of business. And as we walk in, in the next two or three years towards the end of the economic cycle, so the discipline about credit risk management, market risk management, optimizing capital and liquidity and disciplined expenses will be very, very important.

Second pillar is optimizing on the current model, and there are plenty of opportunities there. So if you look at – on 2018, the green bar there that says \$3.65 billion, this is what is addressable wallet in areas within our strategy that we are – on a granular level that we are not number one at the moment. So we are addressing all that.

And that if we do a good job, and we have done some of that in the past, so it will give us upside almost in all lines of business, in Equities, in Banking, in both business of transaction services all over the place. And this number doesn't include at all any increasing wallet or any increasing wallet share in areas where we're already number one. So there is upside here too.

The most important part is how do we prepare ourselves for the transformation coming in the future. So, clearly, being very tough about not being complacent, fighting bureaucracy, delivering at speed, embracing innovation, disruption, are going to be the key elements to win. How do we take advantage and invest in new technologies to future proof our infrastructure and really create more and more operational efficiencies to do a lot of more with the money that we invest today. So reshaping our approach to data to really take full advantage of new technologies like machine learning, artificial intelligence and develop new lines of business.

So Takis talked about the Interbank network, Troy talked about all the work that we are doing in having great, better and better algorithms, including artificial intelligence on those. So how do we think about the opportunities of the transformation in technology space is going to create lines of business that we don't have today. And also be aggressive in the sense that if we are going to be disintermediated, it's always

be disintermediated in your own platform than in someone else's. So we need to be disruptive in the way that we think about all the lines of business.

So, clearly, we believe that we have a very, very good hand. We have delivered best-in-class returns in an industry with a challenged wallet and never ending increase of capitalization and increased regulatory cost. So we think that if we deliver on this, we will maintain and increase our leadership position that we have today for the future.

So I will stop here and we have few minutes for questions.

QUESTION AND ANSWER SECTION

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Okay, go ahead. Right up here.

Guy Moszkowski

Analyst, Autonomous Research US LP

Q

Thanks. Guy Moszkowski with Autonomous Research. My question is about FICC and electronification in the wallet. You showed us how the FICC wallet has been contracting over a long period of time, something obviously we've all seen. You showed us a little surprisingly that some of the key areas have not electronified as quickly as you might have thought a few years ago. All of us, I think, have thought that some of the contraction of the wallet is due to electronified pricing. But given that maybe that hasn't been that big a deal, maybe you can give us a sense for how much of the contraction in the wallet has come from electronic pricing, other pricing impact and just volumes?

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

A

Difficult really to go so precise. But if you remember, few years ago, and it's a similar picture now, when we look at around probably that order of \$19 billion to \$20 billion of market revenues, \$5 billion of that was subject to electronification. And we said then that the range of drop in revenues by electronification would have been something between \$200 million to \$800 million. Some of that has happened for sure. I think there is still probably more to come, and we've compensated all of that by increase in market share.

So I always thought then that the Fixed Income wallet will remain stable and there is some possibility to grow as the world grows and Europe and all that story that hasn't happened so far. So the last year dropping wallet, after three years of relatively stable wallet, is – I think is bad for everyone in general, but particularly it's a lot worse for people that have a lower market share because their business will get a bit more challenge; and overall is bad for the whole market because as new players and more and more players exit the market, will reduce their commitment to the markets, it creates an issue with liquidity. And we have some of that taste in what has happened in December. So that's why I'm saying that the story of the wallet that we all want to go up has been not such a big issue for us. Electronification, it may be that some places being higher or lower, but overall it hasn't been such a big issue for us either.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

We can do maybe one more, if there is one out there. Right there. Hold one sec. Get a mic.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Great. Betsy Graseck, Morgan Stanley. So I mean you mentioned earlier that you expect to maintain your position, I'm just trying to understand going forward do you expect more spread compression as electronification continues throughout these products with the subtext that you do anticipate gaining enough share in all of these products to enable your revs to be at least flat, if not grow a little bit? Or are you saying that you think spread compression is going to be decelerating even though electronification increases?

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

A

I think that, and I may be totally wrong here, but in my view spread compression has little to do with electronification. It has something to do, but not zero and is by far more a factor of market volatility. And spreads go up or down as volatility goes up or down. So that's why I think

about it. So electronification is a headwind in terms of the overall as an average, but really what moved the spreads is a lot of more volatility than electronification.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

So same question, volatility declines and, as a result, your market share has to go up to offset that.

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

A

I think that our market share has been growing up and probably – really, honestly, I saw that in 2017 we have very good market share. So, in 2018, we increased our market share by 90 basis points at a very high base. Our growth market was equally in Fixed Income and Equity. So I don't see why as we go deeper and deeper into the different lines of business, where we see weakness, we can increase a bit more.

So just keep in mind that is our wallet is remaining stable and we don't change our market share at all. Our business is perfectly profitable on a marginal basis and an overall basis. So, obviously, we're getting more market share, great. Even if the wallet grows, great. But if it doesn't, so we're still perfectly fine and very good returns.

Okay, great. Thank you.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Thanks, Daniel.

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

A

Thank you very much.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

All right, guys. Can we get you to grab your seats? Mr. Dimon, if you could lead the way and grab the seat down in the front here. I have to heckle him once every so often.

Thank you, thank you. Welcome. Welcome back, Jamie, welcome back. All right, everyone, welcome back from the break. Welcome to the Consumer & Community Banking section of the 2019 Investor Day. I'm going to be joined this year as in prior years with some terrific members of the team. Thasunda Duckett, who is the CEO of Retail Banking will join me in just a few moments or two. Mike Weinbach CEO of Home Lending and Jennifer Piepszak, who is the CEO of the Credit Card business. So you'll hear from them all over the course of the next hour or so.

So in terms of the priorities which we have set for the business for 2019 and 2020, very consistent with what you've seen today, and I hope the theme of our presentation will also be consistent, both strategically in terms of consistent execution and focus on the customer. And talking about the customer, the first bullet point, One Chase, making sure that the customer feels that whatever products they're using from us, has a consistent touch and feel in the design of the product.

And then as we move down to interoperability, to make sure that whichever channel the customer you choose is – and that's important, whichever channel the customer chooses to interact with us, whether it's over the phone, whether it's on the mobile device, or coming into one of our branches, that it feels entirely consistent with the Chase branding and strategy.

Expense management has been an area of intense focus – I'll show some numbers in a moment or two – over the last number of years and it's allowed us, given us the capability to keep investing in these businesses, in fact in an accelerating way.

Focused intently in the risk and control environment; we'll continue to do that. And then, of course in a world of cybersecurity and customer privacy acutely important that we're protecting the firm and critically important, protecting our customers. And as you'll see some of them today, retaining and acquiring the best talent that we have in the industry.

So if we look at some of the progress that we've made – If you look at some of the progress that we've made over the last year or two, you heard from Marianne, more than 50% of all U.S. households, 25% of which have a multiple line of business relationship with us, which I look at as good momentum, but a tremendous opportunity that it is only 25%, we can do so much more.

We've been growing retail deposits at twice the rate of the industry and continue to enjoy the number one slot in both outstandings and sales in the Credit Card business.

Interoperability between the channels – I'm not going to go through all of these bullet points. An important example, customers have historically always opened their bank accounts, whether it's a primary checking or a savings account when they walk into a branch. They can now do that walking into a branch or they can do that on the mobile device if they would like. And over the course of the last 12 months since we've launched that capability on the mobile app, we've added 1.5 million accounts and accelerating. So that's really exciting for us, particularly as you'll hear from T that we get into the expansion markets.

We have made really nice progress I think on the overhead ratio 400-basis-point improvements since 2014, and expect that momentum to continue. And we've meaningfully increased our investments in both marketing and technology. And I'll show you how our expense base is beginning to evolve and change a little bit over time.

And, obviously, continuing to de-risk the mortgage business, which you'll hear a little bit more from Mike, as we move through the presentation. Also, I'm going to make a slight point on credit. We're not waiting for recession or a recession then to act on a recession. We monitor credit performance hourly, daily, weekly, monthly, review them in our business reviews and take action as we go along and make surgical pullbacks as you see at the bottom of page 2.

Turning to page 3, actually I really liked this page this year, because you could take it and lay it against the page from last year and you would think that it was almost identical. So very little change in terms of our guidance, a slight improvement, the prior-year target was 11.25% in net revenue rate for Card, plus or minus we are raising that to 11.50% plus or minus. Marianne again talked about the credit performance. It just looks very strong. I would not candidly and I'm not sure anyone else in the industry a number of years ago would have expected us this far in to an expansive economy to have performed as well as we are, and we expect those numbers to remain very consistent in 2019 with the 2018 performance.

For those of you who are looking at the return on equity targets of 25% plus for CCB of course, you'll note we were above 25% in 2018 and so I would emphasize "the plus" our expectation is to continue to be greater than 25% as we go forward through 2019. And we will continue to improve the overhead ratio and drive operating leverage.

So as we turn to the key metrics that we drive and then you'll hear a little bit more about some of these, but if you're going to run your eye down on them I've used this chart fairly consistently, continue to drive active mobile users at a good hefty clip, up 11%. At some point, we will retire this particular metric, because we'll have reached the penetration that we want, but it will be relevant I think for the next, at least the next couple of years or so. You saw deposit growth was strong both in Consumer and Business Banking. It's a tough market, Mike will talk about the home lending market, it is a difficult market. He and his team, I think, have been doing a terrific job derisking our business and preparing it for the long-term, but it is a tough time to be in the mortgage business. And despite that, in CCB and across of course the company, we've been able deliver a very strong performance, despite a challenging mortgage market.

Credit Card sales up 11%, looking strong by the way in both January and February. Merchant processing volumes, you heard a little bit from Takis, and we've seen a slight acceleration from the 15% level as we enter into the beginning of this year. And loan (sic) [auto loan] and lease originations flat to down.

Revenue, as we look at kind of the major drivers of revenue, volumes is the largest single driver at \$3.3 billion. The second, the obvious impact \$1.9 billion in terms of the movement in rates over the course of the last year or so. We really built this business aggressively when rates were close to zero. We invested heavily and now we're starting to see really meaningful returns as a result of rates starting to move. So as we look at 2017 over 2018, very strong performance from a revenue perspective. We expect strong performance to continue in 2019.

Expenses, up from \$26.1 billion to \$27.8 billion. I think we guided you to \$28 billion for 2018, and we expect \$29 billion in 2019, about \$1 billion of the \$3 billion that Marianne mentioned for the overall firm. And it's important to note that for 2020 and 2021, if we separate out auto lease expenses, we would expect our overall expenses to be flat excluding that particular line. So that will continue to drive overhead ratio improvements. And interestingly, the number of people involved in CCB is down year over year from 140,000 to 135,000. Those of you who

have been coming to this meeting for a while will remember that the head count when we first put CCB together as a business was over 180,000 people. Now the business is more than one-third larger than they were then. Clearly, a large piece was as we derisked the mortgage business, but effectively we're down from 180,000 to 135,000, over 180,000 actually, and that number will continue to contract.

Reduction in the cost to serve, effectively what we've tried to do here is just to kind of look at the expenses of pure day to day to support the business. What did those costs look like when we separated out the marketing expense, we separated out the investments that we're looking for that we're making in terms of digital and mobile and the broader technology. And so the core cost of serving our customers on a day-to-day basis has dropped 15% from 2014 to 2018. And I fully expect that trend to continue.

Looking to the right, customer behavior, greater than 80% of transactions are now completed through self-service channels. And this is kind of interesting; at least it's interesting to me. Inbound call volume is down 3% despite the growth in business. So the absolute number of phone calls coming in to our call centers is down 3%. But this is the interesting piece, that the actual cost of those calls is down 7%. Why is it interesting? Because typically self-service transactions are easier, leaving the more complex call to be dealt with by a call center team. And that then of course then drives out unit costs. So we're managing to get the best of both worlds here, which is actually volumes and unit costs coming down fairly meaningfully.

And then as I said, as we begin to position the workforce differently, technology and digital head count is up 2,000, but our operations head count is down over 7,000. Now, of course, there's a different unit cost one versus the other, but the way I think about this would be again going back to the left-hand chart that when we have operations teams, they're covering the day-to-day activities of a customer, that's kind of core operating expense required to support the business – and the technology and digital and mobile people are building the company for the future. I think there's quite a difference in the way, at least I would think about those two expense lines.

So as we put these investments to work, I think the exciting thing is we have the ideas that will deliver the returns to be able to keep pushing hard on our investment dollars and on growth. So if we took the 2018 vintage of investments, over the course of the next five years, that'll generate more than \$1 billion of annual and sustainable run rate savings with a return on investment of greater than 2x.

Created many more user experiences for the digital customer to keep having them returning to our digital app, I'll show you in a moment or two the type of impact that's happening, but more functionality, more capability, driving more value for the customer on the mobile device, driving repeat usage.

The marketing dollars that we put to work as an investment and not as a spend as Kristin Lemkau, our Chief Marketing Officer, always likes to highlight quite appropriately, drove 8 million new card accounts and with a forecasted \$80 billion in spending associated with those accounts going forward and 2 million new Consumer Bank households which are expected to drive about \$15 billion in average deposits.

You're going to hear much more from T about what we're doing with branch expansion. But if you think about where we now have regulatory approval, where we started opening branches and where we have regulatory approval opens up about an opportunity pool of \$700 billion of deposits and obviously we will be competing aggressively to win a meaningful share of that. So exciting development for us, I think. And we will of course, continue to uplift our cybersecurity and risk and control infrastructure. In the world of risk and control, we've spent substantially more than \$1 billion over the last number of years, substantially more than \$1 billion. We will continue to invest heavily. We've made enormous progress for both cybersecurity and, of course, the control environment is an area that we can just never take our eyes off.

I'm turning to page 9, for those of you who are following us on the Internet. And as I alluded to earlier, our digital platform really is embedded in the day-to-day lives of our customers. And you can see the number of digital logins, how frequently people are interacting with us. Look in 2016, 2017 and 2018 – rose 7% (sic) [logins rose 7%] between 2016 and 2017, a further 8% between 2017 and 2018, and I expect that trend to continue to accelerate as Bill Wallace and his team keep bringing new functionality to the market.

Now, if you move to the right-hand side of the page, of course, there is a cause and effect and our best customers tend to gravitate towards the mobile capabilities. But when you just look at the types of behaviors that we see, net promoter score, our key measure of the customer experience is 10 points higher for digitally-engaged customers. In Jennifer's business, in Credit Card, they tend to spend twice as much as customers are not digitally engaged, and they tend to have twice the number of cross line of business relationships with us.

So I'll come back at the end after you've heard from the other members of the team and we'll do questions. But I feel and I hope you do that the businesses really have tremendous momentum and that is accelerating.

So, without further ado, please welcome Thasunda to the stage.

Thasunda Brown Duckett

Chief Executive Officer-Consumer Banking, JPMorgan Chase & Co.

All right. Thank you, Gordon, and good morning, everyone. As Gordon said, I'm Thasunda Brown Duckett, CEO of the Consumer Bank.

I'd like to start with a few strategic priorities that might look familiar. Two years ago, we told you that we would acquire and deepen relationships, increase client engagement, and improve efficiency. And that's exactly what we did. Since 2014, we increased balances by over \$200 billion and acquired 2.5 million net new households. The incremental deposits we acquired in this time alone would be enough to create the 7th largest U.S. bank. These new customers are quick to take advantage of our digital capabilities with 75% becoming mobile within six months of opening their accounts. And we're doing it all more efficiently than ever before. The variable cost per household has decreased 14%, as our customers continue to transition to self-serve.

Looking at slide 11, we continue to lead the industry in deposit dollar growth since 2014, growing at twice the industry average. We've been successful because we've won at both acquiring new relationships and satisfying existing ones. Our customer satisfaction is at an all-time high and our client attrition is at record lows.

We've acquired 23% of new primary bank customers over the last two years within our footprint and the quality of these new relationships is excellent with new household checking balances 40% higher than they were four years ago. So going forward, we will continue delivering against our priorities, through the strength of our industry-leading omni-channel offering, constant innovation and expansion into new markets.

On slide 12, you can see that we've invested heavily in digital and it's paying off. We have the largest and fastest-growing active mobile banking customer base in the country. Our digital offerings have transformed how our customers interact with us, leading to deeper more frequent engagements and greater convenience at a lower cost.

We're seeing that our customers are logging into Chase on their mobile app more than 5 times a week. We have grown QuickPay active users by almost 2 million customers in the last year and more customers are using their Chase apps to deposit checks, that means time saved for our customers and our tellers.

Our physical network has been critical to achieving industry-leading deposit growth. The progress that we've made in digital has made it easier for our customers to self-serve and we have seen this shift happen gradually across all age groups. But even as customers continue to use their mobile app more often, they still value our branches. Convenient branch locations are still the top factor for customers when choosing their bank. Our strong network is a big part of why we are number one in acquiring new primary bank relationships in footprint. In fact, over 21 million households visited our branches last year.

To put that in perspective that's over 80% using our physical network and these are some of our best customers, as 70% of our deposit growth can be attributed to households who visit branches frequently. So we are well suited to meet the needs of our customers today and tomorrow. We continue to keep a close eye on our customers' preferences and behaviors, and we've put ourselves in a flexible position to pivot as needed in the coming years. In fact, over 75% of our branches can be exited in five years and over 85% can be extended for more than 10 years. We're rolling out new smaller branch formats and standalone ATMs to maintain our physical convenience and doing it more efficiently.

Our omni-channel strategy has been an important driver of our success, but we aren't getting complacent. 2018 has been a year of innovation across the customer lifecycle. We're making it easier for customers to get started with us. And as Gordon just mentioned, since launching digital account opening last year, we opened 1.5 million accounts. The majority of these accounts are incremental to our already-strong branch production.

We're also making it easier for our customers to manage their money, helping us increase digital engagement by 10 percentage points since 2014. And, we're making it easier and more rewarding for our customers to deepen with us. New products like Sapphire Banking are delivering the combined value of our Cards and Consumer Bank franchises. These multi-line of businesses households are 2.5 times more profitable than households with only a banking relationship.

So we're taking these innovations on the road as we expand our network to new attractive markets. We're able to expand more effectively than ever before for four key reasons.

One, we're bringing Chase to 93% of U.S. households, including 3 of the top 10 U.S. markets, which alone represents over \$400 billion in deposit opportunity.

Two, we are engaging a large base of our existing CCB customers eager to deepen their Chase relationship. We have over 6.5 million Card customers in our new markets. These customers already have an affinity for the Chase brand and have 2.2 times higher response rate for Chase offers.

Three, our omni-channel approach works well in both acquiring and deepening with our customers and we're already seeing this in D.C. Over half of our in-branch account openings are new to bank, while 60% of our digital acquisitions are from existing Chase customers. So by combining the strength of our physical presence and our digital capabilities, we're able to reach even more customers faster.

And then lastly four, we are getting smarter with branch and ATM placement by using our card transaction data to understand exactly where our customers live, work and shop, enabling us to strategically optimize our footprint. So our playbook is not just working in new markets. It continues to work in our existing markets. Across the top 10 deposit markets, we have increased share from 13% to 16%, while decreasing branch share at the same time.

So to wrap up, we will continue to deliver on our key strategic priorities to acquire and deepen relationships, increase client engagement and improve efficiency. This is just the beginning for us and we are excited for what's ahead.

And, with that, let me turn it over to my colleague Mike, to give an update on our Home Lending business. Thank you.

Mike Weinbach

Chief Executive Officer-Home Lending, JPMorgan Chase & Co.

Thank you, T. Good morning, everybody. I'm picking up on slide 17. And for the last several years, we've talked to you about our strategy to build a high-quality customer-focused Home Lending business. It starts with maintaining excellent origination credit quality, improving the quality of our servicing portfolio and de-risking the business, all while remaining relentlessly focused on delivering for our customers and investing in the significant opportunity we have to innovate and win with our primary bank customers.

Before I get to our results, just a quick check-in on the state of the industry. Over the last couple of years, interest rates have risen and the size of the origination market has declined significantly, driven by a very large decline in refi. We expect origination volumes to remain near cyclical lows in the near future. And the combination of a smaller market and increased digitization, it's contributed to excess capacity across the industry. This has pressured spreads and margins while the cost to originate loans continues to increase as the industry absorbs the impact of new regulations.

So in light of this challenging environment, we're being intentional in our positioning across the business. We make choices based on quality and returns. We do not chase growth at all costs. And you can see our origination volume was down 19% last year versus a decline of 10% across the industry. But within these results, there's two very different stories.

In our correspondent business, where we purchase loans originated by others, we let considerable share go that didn't meet our return hurdles and we were down 28%. In our consumer origination business, where we make loans primarily to Chase customers through our retail and direct channels, we were down only 5% and gained share. In our servicing business, you'll see the significant declines in our foreclosure inventories and delinquent loans against a relatively flat servicing book and a mix of our core loans continues to improve in our portfolio and our net charge-offs continue to be very, very low. In fact, for 2018, we had a slight net recovery.

Taking a deeper look at our portfolio, you can see the substantial rebalancing that's occurred over the last four years. In 2014, we had \$69 billion of core loans accounting for less than 40% of the portfolio. Fast-forward to the end of last year, our core loans increased to \$188 billion, representing almost 80% of the portfolio. You'll also see the share of the loans that we originated that we retained in our portfolio varies year to year, based on market conditions and what represents the best execution for our shareholders. You should expect that we'll continue to manage our portfolio to optimize liquidity and capital efficiency, both across the Home Lending business, but as Marianne mentioned earlier, across the broader JPMorgan Chase balance sheet.

The credit quality of our portfolio is extremely strong and continues to improve. You'll see that our 30-plus-delinquency rate ended below 1% last year and our net charge-offs have declined from 50 basis points in 2014 to that slight net recovery that I mentioned earlier at the end of last year.

We're also constantly stress testing our portfolio and looking at layered risks that may come under pressure during a downturn. And you'll see on the chart on the right, the percentage of our portfolio with FICO's below 700 and LTV's (sic) [CLTV's] above 80% has declined by 90% over the last four years.

It's not just our portfolio but we also continue to de-risk our servicing business. Over the last four years, you can see we added about 1.6 million loans to our servicing book, through a combination of new originations and selective acquisitions. At the end of last year, those new loans had delinquency rate of less than 1%, significantly lower than the 10%-plus delinquency rate of the loans that exited our portfolio over the last four years. This has contributed to a decline in our absolute delinquency rates from 6.26% at the end of 2014 to just over 4% at the end of the third quarter of last year and as I showed you a few slides ago, just over 3.5% at the end of the year.

And this is important, because the cost of servicing delinquent loans and the risks associated with servicing delinquent loans are considerably greater than those of performing loans. And you can see in the chart on the right, the combination of our improved mix and other operational efficiencies, it contributed to a 30% decline in the servicing cost per unit over the last 4 years. It's not only our absolute performance, but our relative outperformance versus the industry that's improved from 24 basis points in 2014 it's tripled to 72 basis points last year.

So despite the challenging market and our efforts to manage risk, we remain intently focused on our customers. You can see our Net Promoter Score has doubled over the last four years. And, in fact, we've had record customer satisfaction across just about every part of our Home Lending business. And this is important, because our customers that are highly satisfied, we show you here customers that give us a 9 or 10 out of a 10-point scale on our customer satisfaction surveys, are 2 to 3 times more likely to open checking accounts, savings accounts and investment accounts with us. Not only that, our existing customers that are highly satisfied who choose Chase for their mortgage, exhibits significantly lower deposit attrition rates and significantly higher investment growth rates.

So as we look to the future, we think we have a significant opportunity to grow our business with our Chase customers. For the last several years, we've talked to you about our now 62 million households, half of which own homes and have mortgages but only 4 million to 5 million of those customers have their mortgages with Chase. We're further focusing on three core customer segments where we think we have a significant opportunity to grow. The first of the 4-plus-million customers that already have a mortgage with Chase, yet, today, when they get their next mortgage, they're only choosing Chase 20% of the time.

We have roughly 6 million customers where Chase is already their primary bank, but they have a mortgage elsewhere. And when these customers get their next mortgage, they're only choosing Chase 10% of the time. And we have roughly 3 million customers where we are already their primary bank and we believe they're likely to become first-time homebuyers over the next several years. And again, historically, these customers have only chosen Chase 10% of the time.

We're already seeing success within this customer base. We grew our purchase originations with primary bank households 30% over the last two years, which is more than triple the rate of the industry, but we believe we're only scratching the surface of this opportunity. It's not hard to imagine significantly greater capture rates with each of these customer segments as we reach our customers earlier within the Chase ecosystem and deliver a differentiated offering that's better than anything else available to them in the marketplace.

So how are we going to capture this opportunity? By simplifying and innovating. We recently rolled out Chase MyHome, our digital mortgage offering. It replaces piles of paperwork that customers need to sign and fax and needing to call us to see where they are throughout the process – some of the most frustrating aspects of buying a home – with a process that is much more transparent where a customer can access where they are anytime, anywhere, from any device, e-sign all documents and upload any information they need to get to us. We just rolled this out in the second half of last year and already in the fourth quarter, 40% of our funded loans use Chase MyHome.

And we're seeing greater than 20% faster cycle times and it's contributing to customer satisfaction at record highs. But even more importantly, it lays the foundation for us to do even more for our customers. We can pre-sell applications and automatically verify income and employment further simplifying the process of getting a mortgage. And for our very best customers, we can deliver personalized pre-approved Home Lending offers, so they can go to an open-house with the confidence of a cash buyer, knowing they can close in days or weeks versus months. We're already seeing great progress in terms of closing times, so much so that earlier this month we rolled out an on-time closing guarantee. But we guarantee we'll close a mortgage for a Chase customer in three weeks or give them \$1,000 in their checking account. These innovations not only are going to continue to improve the customer experience, but they also significantly reduce the cost to originate a new loan.

So, in summary, what you should expect from us is to continue to manage intelligently in a challenging environment, while remaining relentlessly focused on delivering and innovating for our customers to capture the significant opportunity ahead of us.

And, with that, I'll turn over to my partner the CEO of Chase Card, Jenn Piepszak.

Jennifer Piepszak

Chief Executive Officer-Card Services, JPMorgan Chase & Co.

Thank you, Mike. Good morning, everyone. Today, I'll take you through our Card strategy and share how we are really bringing it to life to drive results and continue our growth trajectory. We start by building scale with great products and marketing. We then engage our customers to drive profitability and lower attrition, both of which, enable us to deepen relationships across the franchise. So I'll talk through each of these. First on scale on slide 28.

Over the last few years, we have built tremendous scale with a dozen or so product launches and refreshes across both our branded and our co-branded portfolio. And this has made us number one in credit card spend and OS [outstandings] with 40 million active credit card accounts. And in 2018 alone, Gordon said it but it's worth repeating, we added 8 million new accounts and we processed 9 billion credit card transactions.

On slide 29, our scale drives sustained growth in top-line metrics. Beginning on the left, you can see since 2014, we have grown active accounts by 6% CAGR, sales volume by a 10% CAGR, OS by 5%, and on revenue even with the headwinds of renewing our co-brand portfolio in the competitive environment we've been in, we've grown revenue over this time. And as you heard from Gordon, we do expect our revenue rate to increase from here.

Our scale also gives us strong operating leverage. As you can see on the upper-left here, our already healthy overhead ratio has improved since 2014. And we do expect that to continue into 2019. And on the upper-right as Gordon said, it's not just about leverage. It's about operating efficiency. And this is just one example, our contact cost per statement. So that's the cost of a customer calling us or e-mailing us and that's down 10% since 2014. In the bottom-left, you can see we've improved marketing efficiency and in the bottom-right, we have reduced our fraud loss rate by 29% since 2014. This is in part due to innovative machine learning that we have been able to apply to the vast amounts of data that we generated. This saved us more than \$200 million in 2018 alone, and is a much better customer experience as we drive fraud out of the system.

So on slide 31, now turning to engagement. Why does engagement matter? Well, our experience shows us that a more engaged customer is a more profitable one. This is just one example of a points redeemer versus a non-redeemer. Here you can see that a points redeemer has more than 4 times the sales of a non-redeemer. They have 2 times the revenue and much lower attrition.

So how do we think about engagement? Well, there are really three pillars; innovative products; loyalty beyond just the points that we offer; and experiences that give our customers a reason to keep coming back to Chase.

So I'll start with innovative products. Here we are excited to announce two new product features that we'll be rolling out later this year, both of which are geared to making borrowing easier for our existing customers who have \$250 billion of borrowing off-us. So our existing customers have \$150 billion of borrowing on-us, those same customers have \$250 billion off-us, and we know to realize this opportunity, we need to offer a holistic set of borrowing solutions.

So we start with My Chase Plan. My Chase Plan is a product feature that will allow our customers to finance a specific purchase. So think a TV or a refrigerator, something that costs say between \$500 and \$3,000. They'll do this using a fee-based payment plan and this will allow us to compete in the point-of-sale financing space. So I have a quick video to share the customer experience. Take a look.

[Video Presentation] (02:28:08-02:28:47)

The other product feature we're introducing later this year is My Chase Loan. My Chase Loan will allow our customers to borrow against their unused credit limits and pay back in fixed amounts, again, unused credit limits that we've already underwritten. This will be for larger purchases such as a kitchen remodel and will be at a competitive APR and allow us to compete in the personal loan space, importantly without taking any incremental risk as this will be a targeted product feature for our existing customers. So I have a video for this one too.

[Video Presentation] (02:29:19-02:30:02)

As you can see, we are building simple, frictionless experiences to make borrowing easier for our customers. So now on to loyalty and experiences. I've three examples. The first is Chase Offers. We introduced Chase Offers in the fourth quarter of last year. This is a platform of personalized offers for our customers, importantly fully funded by merchants. This creates a powerful flywheel, where Chase can bring value to our merchant clients through our scale. They in turn bring value to our customers and create an additional revenue stream for us. This product has scaled very quickly.

In just a few months, we've seen 7 million cards activate more than 25 million offers. Again, in just a few months.

Next, our Credit Journey, free credit score platform has been a big success and a phenomenal way to not only engage our customers, but support credit education. This in turn makes our customers better consumers, which is always good for our franchise. We're going to continue to invest in this platform building best-in-class score monitoring capabilities and much, much more. And again, this scaled very quickly. We have more than 15 million customers and non-customers enrolled in Credit Journey.

And last, tap to pay. We also introduced tap to pay in the fourth quarter of last year. And like some other initiatives, we were not always first, but our scale allows us to invest with discipline as a fast follower and see rapid customer adoption. And what we're seeing here is that for customers who have a tap to pay card, so they have the choice between tap to pay and a mobile wallet. These customers are choosing tap to pay at a rate that is 2.4 times that of a mobile wallet, again in just a few months versus mobile wallets that have been in market for years.

Now, on to deepening on slide 38. We know that an engaged card customer is more likely to adopt a second product from Chase. Here you can see that a high spend engaged card customer is 1.5 times more likely to take a second product; a mobile active customer, 2 times more likely; and a card customer who has enrolled in Credit Journey is also 2 times more likely. And when you combine that with Thasunda's point around the response rates from our Card customers, this is an incredible opportunity for us. And you can see at the bottom here when we get it right, these customers are much more profitable and much more satisfied than our card-only households.

So now on to deepening. When we deepen we also make better risk decisions. We start with a strong foundation of detection, decisioning and execution capabilities. But when you add the powerful data set that comes with a deposit relationship, we are able to increase our approval rate by 2.5 times and decrease our Card NCO rate by 30%.

Just to double-click on risk on slide 40. Our portfolio is much stronger today than it was pre-crisis, but our capabilities are also much stronger. We have better data to decision and monitor. We have more prudent product design, specifically as it relates to our balance transfer product. We have enhanced segmentation and we have a better view of our customer's balance sheet. This has allowed us to do surgical pullbacks over the last few years, pullbacks that have not compromised our growth in a meaningful way. And you can see here on the right-hand side of the page, the solid line is our NCO trends through time. The dotted line is what it would have looked like had we not done these pullbacks and that relationship will continue to expand through time as those vintages mature. But as you well know even small differences in our NCO rate can have a meaningful impact on our lost dollars.

So to wrap up on Card, we have a moat that is difficult to replicate. We have powerful distribution to our Chase on channels as well as our partners. We have a fortress balance sheet and world-class risk management and we have a broad banking franchise to serve our customers beyond Card. So to summarize, we have a clear strategy, a robust and risk resilient portfolio and continued runway for high-quality growth.

So before I turn it back to Gordon, I'll close on behalf of CCB. So on behalf of my great partners, Thasunda and Mike and of course Gordon, we remain focused on continuing to deliver across the board. We will continue to bring the full power of One Chase to our customers now more so than ever as we expand into new markets, acquiring new customers, and deepening with existing ones.

We're increasing our engagement with our customers with new products and experiences across both our physical and our digital channels, all while becoming more efficient and how we serve them. So our growth opportunities are unmatched in scale and we are well-positioned and confident that we can capitalize on them.

Back to you, Gordon.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

Great job, guys. Well done. And while Jason is just teeing up the first question, I just want to make a point on diversity. So half of the CEOs of our businesses are women; our CFO is a woman and French; our Chief Marketing Officer is a woman; and our Head of Strategy is a woman; and I'll have forgotten somebody and we'll get real heat later on. But I think it's an important point.

QUESTION AND ANSWER SECTION

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Okay.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Mike, we'll go to Mike.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Mike.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Okay. I'll ask one easy question and one hard question. The hard, I don't know why nobody...

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Those little models that you had yesterday.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Work with me here, Gordon.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Okay.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

What percent of mobile banking wallet share do you have? Nobody seems to disclose that information. And you talked about a saturation point, so how large is the market and how far are you to getting there?

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. Listen, it is a really hard number to calculate, because we don't have other people's data to be able to figure out kind of where exactly we are in scale. But everything we look at in terms of usage, when we take something like QuickPay with Zelle, we know as we launched into the broader Zelle rollout a 1.5 year ago, we were half of the industry traffic. Half of it, just Chase. So I think we have a pretty meaningful position. It's – I'd love to – better give you a precise answer, but we feel and I hope you felt it from the presentation, really excited about the momentum that we're growing and this is why it's important the traffic that I mentioned backwards and forwards to the mobile app is, if you go back half a dozen years or longer, people may have had five, six, seven, eight pages of apps that they were carrying on their devices. It's not true today. It's half that. And so being the resident banking application on a customer's phone is really powerful. And I think you saw some examples of how we're able to drive engagement more aggressively and we have a bunch of stuff in the pipeline for this year and next, which I think we'll just pick up the pace on that.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

And then as to follow up, as you expand into the new markets, you said there's 80 million new potential customers, 6 million of which are Credit Card customers today. How many other of the 80 million are digital banking customers, auto loan customers, mortgage customers?

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

How many do they – how many know you already? And what role is marketing and brand as part of this expansion? You did mention marketing as part of your strategy.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. Well, I think what we're seeing and I almost thought about some index data to show how the new branches are performing, but currently we're just a few short months of data well beyond our expectations firstly, and beyond the performance that we see from opening new branches in our existing footprint, so that's very encouraging at any way we look at it.

As we dig into it, we look at – and Card is by far the largest and it drops down pretty significantly to Mortgage and Auto that there seems to be, again in the very early going, a demand for customers who have really liked their Chase products they haven't felt they've been able to bank with us because we haven't had the branch network there and that's where I think we're seeing the acceleration of growth. No numbers because it's too early and as we know in the first 90 days or 120 days, you can be misled. So all I would do is rather than mislead is say that we're quietly optimistic about what we're seeing so far.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Yeah. To Saul over here.

Saul Martinez
Analyst, UBS Securities LLC

Q

Hi. Saul Martinez from UBS. How do you think about what the optimal branch footprint is and what's the outlook for overall branch count, because on the one hand you're obviously growing your branch network in new markets to grow your new client base, but you're gaining share in your legacy market if you're optimizing your branch network and it does seem like there are opportunities there to continue to pair the network. So should the branch channel actually continue to fall even as you open new branches?

Gordon A. Smith
Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. Yeah. Listen, I don't want to be cute in the answer to this, but the simple answer is the optimal size of the network is exactly what the customers want. And so we look at this again with great – T and I look at this on a monthly basis and folks in the organization look at it much more closely.

But every single branch we have, has a P&L. As of now, we have less than 10 branches which were unprofitable, less than 10 from over 5,000. And so we're just kind of constantly evolving it. For customers it isn't one thing. I would never lay out a target and I can think of somebody who would be on my case if I did to say we will be down by X branches and Jamie is right, his point is always don't make your expense targets by cutting branches. It's the easiest thing to do. We've got 45,000 people there. We've got real estate costs which is why we measure their profitability and we constantly evolve to the needs of the community including, looking for areas and doesn't happen in the Tri-State Area which is so densely populated very often. We would travel to most other parts of the country, you can go down to Florida, you can go out to Arizona and so on and so on and so forth. And there are whole new communities developed, where new homes have been built and restaurants and shopping malls. And we go build branches in those places to serve those communities. So it's very much a piece of living analysis, but it's entirely focused around the customer and what our customers need.

Thasunda, would you want to add anything to that, you've got the mic there.

Thasunda Brown Duckett
Chief Executive Officer-Consumer Banking, JPMorgan Chase & Co.

A

Yeah, I don't have a mic, but I have this mic on.

Gordon A. Smith
Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah, you've got one embedded on you.

Thasunda Brown Duckett
Chief Executive Officer-Consumer Banking, JPMorgan Chase & Co.

A

What I would say is just a couple of things. We've been investing in different formats. And so what that means is when you look at the investments we've made in our ATMs that can do more than 70% of what a teller can do. And when you look at our Express branches, which are smaller, highly digital and with less staff, that allows us to optimize the credit card data that I mentioned earlier, so that as we look where customers live, shop and work, we're able to look within our portfolio and say what is the right asset for that particular market.

The last thing that I would say is we have a strong discipline and looking at what makes sense when we consolidate and when we grow. And so you should expect that discipline to continue, but you should also expect the power of our data and the investments we've made in our digital assets and physical assets will allow us to be much more optimal as we go forward.

Jason R. Scott
Head of Investor Relations, JPMorgan Chase & Co.

A

Yeah, Chris.

Chris Kotowski

Analyst, Oppenheimer & Co., Inc.

Q

Yes, Marianne alluded this morning to...

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Chris, could you hold the mic...

Chris Kotowski

Analyst, Oppenheimer & Co., Inc.

Q

Oh, hi, it's Chris Kotowski at Oppenheimer. Marianne alluded to prospect, likelihood, whatever of deposit re-pricing and it seems to me what we've seen thus far, it's kind of like this bifurcated world where if you are a wealth management customer or a corporate customer, your deposit rate is almost like a money market, it goes point for point, but if you've got \$3,000 or \$5,000 or \$10,000 in a money market account that's tied to mobile pay, it hasn't moved at all. And I guess what is the prospect for keeping that customer base in the not moving at all, and to what extent are the all these new digital banks a threat to that?

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. Listen, I think Marianne put this very well earlier Chris, but I think the first point I really want to make here to augment what Marianne said is that when we do business with customers and we are attracting more customers, we want to be their primary bank, once we're the primary bank, then the deposits come then the investments come. But it's very easy just to go and get deposits, we can price for those. And then it's very easy to lose them because somebody else can price and the money flows around the system.

So our primary focus is to engage the customer as their core bank. And then I'm obviously not going to get into details about pricing strategy, but we have a team who are constantly looking at where we're priced, how competitive we are, by very, very finally sliced segments, and we just we can make adjustments and do, and do very quickly.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Betsy right here and then Ken.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Hey, Gordon. Two quick questions that are related. One is that, we haven't heard yet up from you guys about Finn and is that still something that you are focused on, because we heard that really with new branches that's where you're getting the market share pickup. So how should we be thinking about Finn? And then separately, on the investment spend in the branches, we know about the 400 or 500 that you're looking to expand over the next several years, only 10 of your branches are unprofitable today. Should we be expecting a net increase in branch growth? And with some of the consolidations that are going on in competitors...

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

...are you bringing that forward? Is that going to be a little bit sooner?

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. So here's what I would say about kind of new product launches. As we lay out the financial metrics for all of you, we tried to lay in to those financial metrics obviously a little bit of a perspective on what we think the environment is going to be that we're going to operate in. But more specifically, what do we think the performance is going to be of our existing book of business, of the new products that we're going to launch, of the return on investment we think we're going to get from the technology investments and the marketing investments. We pull all of those things together and you get the outcome that you saw on the slides.

This year and to some degree last year, we try to pull away a little bit from product specific details. Why? Because we think it's really valuable for our competitors to be able to see what have we tested, what return did we get on those tests, what do we think about those tests? I would much rather our competitors spend their own money, I would encourage them to do that, to spend their own money on their own learnings, so whether it's been – whether it's Sapphire Banking and all of those things think about them has rolled into that expectation that we get greater than 2x return on our investment. And when we look at those investments that we're making kind of overall the book, if you like, the team goes through a very rigorous process that's run by Sarah which looks at what do we think the returns is going to be, we measure what it actually is, a year after, two years after, three years after and then constantly adjust to it. So not going to give out specifically how the individual products do, but you'll get a good sense of kind of what we're committing to as an outcome from them.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Ken over here.

Ken Usdin

Analyst, Jefferies LLC

Q

Thanks. Ken Usdin from Jefferies. I've one question on credit, and one on growth. So just to elaborate further on your positive surprise that you've mentioned on how Credit Card has remained and Jenn's points about the risk management capabilities changing. Can you just elaborate a little bit more on what does the pullback mean in terms of what would you attribute this to, I guess, the continued flatness outlook for card loss rates. I guess if you can give us a little bit more detail? And what are the most important indicators? I guess, that you're trying to early warning identify ahead of that?

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Yeah. And actually, Betsy I realized I didn't answer the second part of your question, so I'll come back to that in a second.

So firstly, I think, we're in a very strong economy. Employment rates are extremely important, and they remain robust, very robust actually. And I think if I look back at sort of the back half of 2018 and to present, that there have been some meaningful issues, which I think has begun to generate a little bit of a question in business people's minds about the future prospects of the economy.

Obviously, government shutdown does not help, does not help in any way. So there have been a number of different things I think which begins to question people's confidence, but I think that said the consumer continues to look really strong.

We look at our credit performance at a very granular level by product, by geography, by tenure, of the customer, by the acquisition vintages, by channel of vintage, and we just made kind of very slight adjustments. So Mark O'Donovan's over here, who's the CEO of Auto Finance. And late last year we were looking at the returns that we were getting, in some of the prime and super prime segments of the auto market, and we looked at it and said if you expect over the duration of a loan of 2.5 to 3 years, if you expect there to be some type of recession be at moderate or severe over that duration, the returns that we were seeing were so modest that we backed off and we have remained backed off

at this point. And Mike reinforced the point we'll enter back in if we see those returns start to improve. But we don't set specific loan goal targets for the business and we'll pull back when we see either returns or credit issues that we don't like.

Betsy, in terms of the branch, I could have answered that question a little bit earlier, the second piece of your question, which is just to kind of constantly be refining the branch and I think T said in her answer that as we expand into the new geographies, we typically have a smaller footprint, this footprint typically has fewer people in it so the cost to run the branch is a lot lower and we have of course all the latest technology which helps to drive down those costs. So just constantly evolving the network over time and it's not something we look at and say two or three years from now, we'll have 300 or 500 fewer branches or 300 or 500 more.

In fact, one of the things we do in our business reviews is we ask all the regional heads, because I don't know, T doesn't know we sit here in New York, we don't know if there's a segment of a community that is not being well-served because it's just been – it's just grown through construction, but the local people do. And so they'll raise up, for instance, say, listen, we should do this or we should do that and we'll go try.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Okay. I think I'm out of time.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

We're out of time.

Gordon A. Smith

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Consumer & Community Banking, JPMorgan Chase & Co.

A

Thank you guys.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

We're going to break now.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

Okay, can we start the next section here. Grab that coffee. Come on back in. I'll give everybody a second. Okay, before we start the next set of presentations, just a couple of things to note. First, hopefully, you saw a survey that we have on the table, please take time to fill it out today if you can or there'll be an online version as well that will be available tomorrow. We really appreciate the feedback. Anything you have for us, so you can take the time to fill that out either today or tomorrow or in subsequent days that would be terrific.

For those of you in the room, if you haven't already received an e-mail, you will receive an e-mail by the end of these sessions with your lunch table assignment for today. Lunch will take place on this floor here back, mostly around the back side of the conference center over that way. So please make sure to check your e-mail before we get to the end of this session, so you know where to go, which room to go to. And then once we finish, we will go straight to lunch, be sure to come back here, get your seats on time because we plan to start the last session with Jamie promptly at 1:30, I know we're running a few minutes late, we're not pushing that later, we're starting this thing at 1:30. So get back here because that session will get rolling.

So with that I will pass the mic to Mary Erdoes, CEO of Asset and Wealth Management.

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

All right, everybody. So this morning was really great, Marianne setting the stage with the numbers and Daniel and Gordon and their teams doing such a great job walking us through the two extra large businesses here in the bank.

The next session between now and lunch is going to be me and Doug Petno who are going to cover what I call the more specialty businesses in the firm and so we're looking forward to taking you through those.

As the headline says and I think this is really important, we believe the way that you run a successful Asset & Wealth Management business is first and foremost focusing on client outcomes and secondarily focusing on financial outcomes and as a fiduciary if you do those the other way around, you will likely erode the foundation that is necessary to run a long-term sustainably competitive investment management business and so what I'm going to take us through today are basically three themes about how the Asset & Wealth Management franchise is run.

First and foremost, it's a very consistent business. If you do, as I mentioned on top, a constant focus on investment performance first and foremost, your revenues and your pre-tax will just naturally follow and because we take investments in other people's money, we use very little capital from the firm and so what flows from that is a very high ROE for the firm.

But secondarily, you must always and you've heard it in everyone's presentation constantly obsess about the client, constantly make it client centric. Our very first mutual fund in this line of business started in 1881 and is still in existence today. It started when the English wanted to invest in the Emerging Markets country of America, buying railroads and cattle ranches. If you continue to innovate you can take your clients through a journey all the way through the centuries to now investing in things like ESG and other things that are very important. But you can only do that if you're investing in the deepest subject matter expertise that's going to be able to manage those portfolios through time. And you have to obsess about that client journey. We heard about everything from the account opening which in our line of business, in the worst of times, used to take weeks. We're now down to minutes and being able to manage those clients lifecycle all the way through to some of the most sophisticated stress testing that we do as they get to be complex portfolios.

And then, it's always keeping an eye on the future. So it's always having that look towards everything that we're going to do for them. We've talked about digital everything, machine learning, AI, big data; but we believe that is not sufficient. Digital everything for us is in conjunction with the human. It is the human and the computer that make for the winning formula and we will continue to take that winning formula, not just here in everything that you see, but around the world as our clients need our advice.

And so when you look at the bottom, you've always heard us say we will never stop investing in this business. But what's most important, the first set of metrics on the left, nothing else matters in this business unless we get the people right. The single most important metric that we look at each and every day is the retention of our top talent. If you get that right which still remains at 95% and above for the past several years, you will continue to have the second, which is you have trusted advisors that clients come to because they like and they trust them and in fact we've had positive flows every single year for the last decade. But we will never stop, both waste cutting and investing in the business to make sure that we know how to make it more efficient, more effective and not lose our edge.

So I talked about you always have to put investment performance first, financial performance second, this is a financial room, so we're going to do financial performance first and get that out of the way.

So how have we done over the last five years? Over the last five years, you've come to know this business as being one that's consistent, reliable growth engine and we've done that. How did we do in 2018? I would say, okay. Yes, we had record revenues; yes, we had record profits; yes, we had a record lending business but the fourth quarter was really tough, AUM and AUS dropped. And you can see by the combination of the 3% revenue growth and the 2% income CAGR that our concentrated effort in heavily investing in both people and technology with eyes wide open, we have to understand that the payback time is longer than this window of time.

So let's drill down on both the expenses and the revenue and we'll go through the next two pages on that. Let's look at the revenue walk, which on the left hand side over the last five years, we've grown revenues by \$3 billion and decreased them by another \$1 billion for a net up to \$2 billion. Looking at the left hand side, the growth in revenues has come first and foremost from the benefit of rates as well as the growth of our loan and mortgage business for the banking sector. The second, comes from the AUM that we have that benefits from markets increasing over that time, our composite of what we have invested in is up 3% on a CAGR. And then equally important, equal to the markets benefit, are the \$440 billion inflows that we've attracted over the last five years and the revenues that have been added because of that.

Purposely decreased revenues on the right, are first and foremost decreasing pricing proactively on behalf of our clients as well as business simplification. This has mostly been done in the asset management side. Chris Willcox, who's here, runs our Asset Management business and he has embarked on something called simplify to grow. Simplify for growth is something lots of our competitors in the asset management business talk about, it is really hard to do. All of you know this who run portfolios. It is really hard to shut a fund where a client doesn't want you to. There are clients that want you to run something for a long period of time even though you think you might not have the edge or it might not be the right long-term strategy.

And what's even harder is the portfolio manager, the portfolio manager who says just one more year. This is my year where I'm going to get that outperformance and I'm going to turn this around. And those are very hard to do. He and his team have done it quite successfully.

So, let's look at the results on the expense side and the walk there. This simplify for growth, we have increased our expenses by \$2.5 billion on the left side and taken them down by \$800 million on the right side. Let's walk through that. The first red bar is the enterprise. Think of that as an increase in the support and protection of both our firm and our clients. The second is coated in an orange because I call that a good guy revenue (sic) [expense]. Those are revenues (sic) [expense] that increase when we have revenue share that we pay out to other Wealth Management firms who invest in our Mutual Funds, also the other third comes from strong investment performance related comp. And the second orange bar is another good guy that will show up in future growth as we invest in technology, advisors, new solutions and alternatives, beta and other places. You will see us continue to make these investments but you should not expect these expenses to grow materially from here.

The simply for growth has begun to show itself in the \$800 million dollars of decrease and I want to take you through some of those examples on the next page. Just in the last two years, what have we done? Well, we've launched lots of new things that our clients have asked for. We've launched a 125 new funds as we've seen opportunities in the marketplace and our clients have requested that. But at the same time, we've shut down 30% of our Mutual Fund spectrum, 229 funds have been shut or merged. Why? Because of just – what we just talked about. They were out of favor, they are underperforming and they're not coming back and that's the judgment of our investment committee or they've just lost their edge. Those are really hard things to do, they're really important for the long-term franchise.

When you do that, you have other consolidation, on the bottom of the next section is offices closed; 21 offices closed or consolidated, mostly on the Asset Management side because of that simplification, which allows us then to pull that other muscle on the top which is to continue to grow and increase where we are in other locations.

Just like we talked about on the retail side, as the footprint expands, we want to go as a whole firm and together we can make a much greater impact on those markets. Then if you look at the far right, that's really the technology transformation that Mike Urciuoli who runs technology for Asset & Wealth Management has helped us embark on. He's helped us to transform ourselves into a modern infrastructure. That modern infrastructure very importantly allows us to hire what I call modern talent, the best tech talent out there. They can work in an agile development environment, we can have a follow-the-sun workforce. Therefore, we can do weekend sprints to be able to solve for a problem or create an app, to be able to help either internal clients or external, versus the months long that it would take when you had to do it on the side and then get back in the queue to be able to release it in the enterprise system.

All of these things here, they're sort of nice to show at an Investor Day, they're really hard to do both of those muscles at the same time, and the team is doing a really good job at that. These are focused for our bottom line, for the bottom line of Asset & Wealth Management. But we spend just as much time and energy focusing on the bottom line of our clients and their net returns. And so I want to take you through the next page, which are things we're doing on behalf of the clients.

We talked already about the purposeful reduction in JPMorgan fees. We've reduced fees on our top 10 U.S. and international Mutual Funds by 20% over the last few years, saving our clients \$350 million a year. The second one is where we really used our size, our scale and those technology investments that I have referred to. Kristian West runs our equity investments platform. As an example, his equity trading, basis points for cost per trade is down almost 50%. The traders on his desk do twice the volume they did just four years ago. We have machine learning that helps us to execute the when, the where, the how across the 70 markets that we operate in around the world. It has drastically reduced our error rate on the trading desk and proudly for the third year in a row, we've been rated the best buy-side desk on the Street by Markets Media.

And then the last one is also important. Brian Carlin, who runs the investments platform for the Wealth Management side negotiates very hard with our size and scale for our external managers. On beta alone, it's 50% of what it used to cost just a few years ago. That is a straight increase to the bottom line of our clients and \$75 million a year in savings. These are the kind of things that the clients come to expect from JPMorgan. And so that's why they entrust us with their assets not just for quarters or years, but for generations. And we tell our clients the most important thing. The most important thing when you choose an asset manager is that you get strong net of fee performance. That's the bottom line.

And so the next page is really just that each and every day, these are on our screens not in these nice bar charts. They're fund by fund, PM by PM, region by region, location, client type, size and you have to keep a strong focus on this long-term AUM. These are mutual funds because they're publicly traded every day and you can see that the 5 year and the 10 year numbers are really quite strong. The one and the three year, they're coated yellow, still two-thirds to three quarters of them are outperforming their peers, but 25% to 35% of them are below their peers. They're under intense scrutiny every day just as we talked about. And we have to figure out, did they lose their edge or are the markets just veering for a little bit here and we can hold for a little bit longer time.

But clients will vote with their feet, so all of that taken into consideration will either lead to positive flows or not. And that's really what I think is the Holy Grail here, this page. You all know the Holy Grail for asset allocation is finding uncorrelated sources of returns. For running an Asset & Wealth Management business the Holy Grail is finding uncorrelated sources of flows.

When you do that it doesn't really matter what the numbers are. It's really a sea of green with interspersed red. There's not a consistency of red anywhere whether you look at it by asset class or whether you look at it on the channels or their regions. Look at the strength of wealth management in retail, green all the way across each and every year.

Look at the strength of the regions, U.S., LatAm, and Asia, green all the way across the years. That's let us as Marianne pointed out in the beginning of our presentation and with \$443 billion of flows to be number two that is importantly only against publically-traded peers that doesn't include Vanguard.

But just like I said that profits have to come secondarily to performance, the thing that you would hear if you were inside of this firm every morning in a morning meeting or in our business reviews is this business does not and cannot strive to be the biggest asset manager. It has to strive to be the best. If you do it that way you may end up very big, but if you reverse that order you have a less likelihood of ending up being the best. And so that's how we keep ourselves focused, and that's why the core components of what we do are worth diving into just a little bit here.

So when I just drill down a little bit on Equities and Fixed Income which are the core components of the Asset Management performance. Paul Quinsee, who runs our equities business and Bob Michele have continued to generate 85% over peers in the Equity side, 78% over peer average on the Fixed Income side. The growth of those also continues to be at industry average. If you stripped out the passive managers, we would be growing at about twice the rate of other active managers in the equity space and 50% faster in the Fixed Income space.

But if you look at things and you drill down, look at Emerging Markets, 81% outperforming peers, we've just celebrated, I think, this month our 50th year of being in the Emerging Markets sector with several top decile funds across China and Asia-Pacific region. If you look at the U.S. equity number, 96% is really firing on all cylinders here. Our Equity Income Fund has just come into the top 10 of all income funds in the United States. It was number one in flows for this past year. And also on January 31, that fund has now become the largest equity – U.S. equity fund in the world run by a woman. I'm quite proud of that. But those have changed. People come to us much less for a style box. I need a mid-cap value manager, and this is the search. They do that some, but much more often they are coming to us to solve a problem which is why the solutions business is growing so fast. If you have the core components and they are very strong underlying, you will grow that business quite quickly. We've doubled those assets across the core solutions, smart retirement and insurance.

If you look at things like smart retirement, that's where the power of the firm really comes to play. We run smart retirement trying to project what you need and what you're going to think about in 20, 30 or 40 years from now. But we have that data on the Chase side. We have the anonymized data from Chase that tells us a couple years before you retire and a couple of years after you retire, you actually spend a lot more money than you think. But something else also happens. No matter what your wealth level is, you never spend as much in later years as you did before even with healthcare costs. That data and understanding the granularity of how it plays out as you get to retirement, and then people pick their retirement date allows us to manage those target date portfolios in a much more sophisticated manner, and not be focused on the traditional 60-40 et cetera, and how we're going to land that plane.

On the insurance side, we also use that sophisticated technology we talked about to be able to apply our risk management tools and help them to do regulatory and ratings, capital stress testing, doing peer analysis. And you should expect to see that continue to grow, as 2019 we've already had a lot of awarded but unfunded wins there in that sector.

When you take each and every one of these and you think about also adding the niche products that we do, I'm just going to take you to the next page here to do a little bit of a deeper dive. Those are the core components. Where is the market moving? Well, in the state that we're in and the uncertainty in the Equity Markets, the hedged equity sector has become one of the most important and fastest growing.

This is our hedged equity – our hedged equity portfolio which is in the third percentile. Over the past five years we continue to generate very strong returns relative to our peers. We've had number one inflows in 2018. Our Sharpe ratio is at 0.85 versus our peers which is at 0.19, four times that of our peers.

Very importantly in the month of December, which was rough for everybody, we were down less than 2%. That's 500 basis points greater than our peers and only 20% of the S&P drawdown. So we continue to see incredibly strong flows into that fund. In the infrastructure space, infrastructure is a very important driver for a lot of clients' portfolios that's grown two-fold up to \$20 billion, Anton Pil and his team of people across the alternative space not only do the traditional operating companies leasing companies but is very heavily skewed now towards ESG, wind, solar, water companies and super exciting for lots of our clients.

Then if you look on the far right, this is another very good example of something where it's a very fast growing sector of the market. Why? Because of the structure of the Fixed Income Markets today. John Donohue runs this strategy. It's in the 6th percentile of performance. Last year, we had zero assets in it. It went from zero to over \$5 billion in one year. Why? Because we have superior risk management as you can see by the drawdown. The more important thing is all those little bars to the right are \$10 billion and \$20 billion funds. There's a huge amount of runway here for us to be able to continue to grow. And if you take what George Gatch does who runs our distribution across the global asset management business and you put him against strategies like this, he will continue to grow this business at the clip that you've seen. But all of them have the same theme that runs through them, which is we apply our subject matter expertise, but also our really strong risk

management. And that's why you see the protection of capital on the downside, and that protection of capital also extends itself to how we manage clients' other side of balance sheet. So let's just look at the banking in a little bit more detail here.

Marianne went through deposit migration at the beginning. When you look at what we've done within the deposit side, \$50 billion of net new money has come in from new clients and \$20 billion we asked to exit. You will remember non-operating deposits, we exited the bank. So all of the rest of that money has stayed in-house. It stayed in-house because we have the great advantage of running everything from deposits to money market funds, to core fixed income, to a long-term balanced portfolio, to alternatives, to options you name it, we've got it; what we want to do, and Gordon pointed this out on the ability to attract assets, once we attract those assets, making you a client for life is our job. That's what we work on. It's not about cross-sell, it's about helping you through your journey and we work very hard on that. And you can see from those numbers that we're able to retain those assets. On the other side, the lending is a very strong growth rate, 9% versus our peers who are growing at about 5%. You look at that growth and you always wonder how is the – how are the – how is the credit book being managed, it's an intense, rigorous credit analysis and very, very deep due diligence with these clients and that's why our net charge-off rates are so low.

We often think about all that that we do on the risk management side, how do we think about turning that and facing it out towards our clients and this is where we get to the digital side and I want to take you through two examples. The first one is on the left. Okay. So as an asset management firm, our job is actually to help outside FAs, so think about the FAs at the great partnership firms like we have at Edward Jones, at Merrill, at Morgan Stanley. They come to us and we help them manage different components of their portfolio, but because of all the things that we do across solutions and risk management, they have also come to us over the past several years and said how can you help us to look at these portfolios just to stress test them and to tell us what else we might want to add or subtract from these portfolios.

And so just like everything else we used to do in life, they would fax us, they would email, we have to retype, send them to our systems and do that analyses and then we started ploughing money into investment tools that they could put on their own desktops. That is now a tool that is out to these FAs at these firms that we serve or just since we launched it this summer. We've done over 20,000 analyses. In December alone, one of the FAs ran 500 of them and he discovered that it was a great tool for prospecting because they take sample – they take the portfolios from some other firm and they bring them in, they download them and then they're able to show the client what it is that they should add or subtract, it is very important and of course it's also what they've come to expect from their relationship with JPMorgan.

And then on the far right is our You Invest platform. You know that we launched that this summer, it's very early days. The stats are not something as we talked about that we want to go through in a large audience. So, we're not going to go into that kind of detail. It is important to know however that 89% of the net new assets are first time investors with our firm and that is a very, very impressive lead as to what's going to come later this year, we'll be launching You Invest portfolio. And so that will be another part of the disruption that one of the things people worry about is do big banks have the ability or the DNA to disrupt and hopefully, you have seen from everything today. That this whole team of people and this leadership group that is sitting in this room with you has that DNA. It doesn't just exist in the FinTechs and it's very important that we know that we are doing it and we're doing it in our own way, very methodically, very thoughtfully.

But it's not just these technology tools. So, it is the combination and as we go through just these last two slides, it's the combination of the human and the computer. The far left is a picture of when we first began to offer investments into the branch. Think of the branch as really being as we talked about a transactional in nature place many years ago. Advice was a very small component in the back.

Today, the branch is becoming an advice center. It's becoming a place where you can talk about Home Lending, you can understand the debts on your credit card, can you turn that into a loan as you saw with the combination of the asset management investment expertise where the Chase Wealth Management investors are sitting in, I think it's about two-thirds of the branches that we have out there in the field. And you can think about how you take all of that data and help the client and make better decisions. I just want you to think about one thing, all of the outside FinTechs ask you very important questions so you can make smart investment decisions. The two main ones they ask you are, how much do you make and how much do you spend? There is almost nobody that answers that correctly. How much do you make is the gross number that's in your head pre-tax and how much do you spend is woefully underestimated.

When you do that, you can get very dangerous suggested outcomes. And so the ability for Chase to take all that data that we have from you and be able to use predictive analytics to help you to know when you can start saving, when you should spend, when you should pay down your credit card and being able to see your whole life and to screen scrape from others and put it all together to help you understand how to manage your financials better is the reason that we want to get down the spectrum to people who are earlier in their life cycle of how to save smartly. And that's our journey and we're really excited about what we're doing there. But it's not just the spectrum of people there.

When you think about the wealth management spectrum, at the very high end, we've already talked about it many, many years. We do a terrific job. We have a very strong market share. At the mass affluent end, we've talked about it from a Chase. In the high net worth, think about the young titans. We describe young titans as basically the people in this room, all of you. People who have a very strong career, income, but they still ask those same questions.

Number one, how much do I need to retire? Some of you ask that to yourself every day. And the second is will I outlive my income? And those are very important questions. And that's where that middle comes into play. That middle needs the combination of the advice and the technology and the tools. And that's what we do on the wealth management side, we will continue to grow that and to extend it both in the U.S.

where you can know that those numbers are continuing to grow but also overseas, where the number of millionaires in China and in India that will triple in just in the next 10 years and so that's where our opportunity is, you have seen us spending on those advisors and we will continue to do that. And that's where you're going to see the continued growth in this market.

So on this last page, how have we done? We have laid out over the long term, our medium term targets have been 4% in long term flows, 5% in growth for revenue, 10% in pre-tax income growth, 30% pre-tax margin and 25% ROE. How have we done? Well, over those three years, if you have a green circle, it means you hit it at least one of those three years.

If I were grading it, I would tell you we haven't met it on the pre-tax income growth and the pre-tax margin. We're not where we will be in the coming years, when all those investments that we've made in people and technology will come online and the results will be in line with the medium-term targets. We're not concerned about it in the short term, it's something that we work on each and every day, we have ROIs on each and every investment down to the person in the office in a seat. And we will continue to invest in this business which I happen to think is a gem of a business with one of the most special client franchises that we have here in this firm and with that I'll take a couple of questions.

QUESTION AND ANSWER SECTION

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Gerard?

Gerard Cassidy

Analyst, RBC Capital Markets LLC

Q

Thank you. Gerard Cassidy, RBC Capital Markets. Mary, on slide six, you've showed us the reduction in the fees for the large equity funds down 20%. Can you give us a little more color, is it evenly spread everything down 20% or some funds seen a greater reduction?

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

No – Yeah, so it's a great question. It's across the board. I just took an example of the top 10 funds both in the U.S. and international to show you. The job of the investment committee of JPMorgan Asset Management is to ask itself the following question every single day. Do your alpha targets net of fees generate excess return enough to be able to sustain themselves over time? You have to ask yourself that on a forward-looking basis every day. And if that changes, you have a fiduciary obligation to change that, and that's how we hold the standard for ourselves and that's how we go through each and every fund and I just use those as two examples.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Right here at the front, Jimmy.

James H. Hanna

Portfolio Manager, North Reef Capital LLC

Q

Hey, Mary, it's Jimmy Hanna. Just a question on corporate solutions type business. So I haven't heard JPMorgan talk about this before but I'm curious if there's aspirations to be bigger in the business, where you are in the business, if it's something that's appealing because there have been some transactions recently targeting corporate solutions?

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

What do you mean by corporate solutions?

James H. Hanna

Portfolio Manager, North Reef Capital LLC

Q

So it would be a corporate client base and helping their employees with asset management type solutions, investment products maybe using You Invest?

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

Well. I think that's a lot of what we do in the 401(k) space, is that what you're referring to?

James H. Hanna

Portfolio Manager, North Reef Capital LLC

Q

Yeah, the 401(k) space is the one.

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

Yeah, yeah. So it is – I don't drill down on those numbers, but when you look at the retail, remember all those green circles that go across the page, those are embedded in there and we have a whole team that goes after those small and medium-sized companies to be able to help them to think about that both for existing companies as well as when you're in a transition which is one of the most important times you can help them.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Yeah. One more over here in the back. Brian?

Brian Kleinhanzl

Analyst, Keefe, Bruyette & Woods, Inc.

Q

Yeah. Brian Kleinhanzl with KBW. A quick question on the increase in capital to the business, was that just a change in methodology for the increase in capital, or it was retroactive? And then two, when we look at the ROE target that went from 35% to 25% plus, but just that changing capital alone was only 500 basis points so you should have gone really just 35% to 30%. So, what's the extra 500 basis points are from?

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

Great question. So the answer to the first question is, the reflection of capital which again is both art and science, as Marianne walked us through, is the combination of the reflection of the standardized capital, as well as the growth in our lending and mortgage books. And that's a combination and that's the capital that we think is appropriate, not just for today, but for the near term. And then in terms of the targets, it was just more in line with what – I think it was the CCB that had 25% plus. So you should expect it to be higher than 25%.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Betsy?

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Okay. A couple of questions. One, there were some rumors that the firm was looking at some beta providers like WisdomTree, and just wanted to understand is that accurate or do you want to comment on that because I noticed that you had quite a few funds that you launched that are beta. So what's the logic or rationale around even thinking about something else since it seems like you really have in-house?

Mary Callahan Erdoes

Chief Executive Officer-Asset & Wealth Management, JPMorgan Chase & Co.

A

So, we're always looking for M&A activity, but that's because we want to keep ourselves in the market, all else equal, in an Asset Management business it is much better to organically grow. Hands down, very difficult to be able to do M&A on the asset management side but that doesn't stop us from looking and when something is attractive or appealing to us we will, and so that's what you'll see us in the marketplace doing. Otherwise our own growth profile is just fine and our plans are very strong.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

All right. Great. Thank you.

Douglas B. Petno

Chief Executive Officer-Commercial Banking, JPMorgan Chase & Co.

So good morning everyone, I guess, almost good afternoon. I want to add my thanks to all of you for joining us today. We really appreciate having you here. You've been super generous with your time this morning, so hang on, I'll get you to lunch, and it's really great to see all of you here joining us today on this important session.

In Commercial Banking, you didn't hear it from me last year, but we've continued to execute our long-term strategy, and I'm pleased to be here this morning to tell you about how we've been relentlessly focusing on our clients, thoughtfully expanding our franchise and investing in our capabilities to deliver more value. With these investments, we're building upon our core strengths to further extend our competitive advantages and, as you would expect from us, we're maintaining our fortress principles and through-the-cycle discipline. All of this has led to continued strong financial performance, and while we're quite proud of these results, we're even more excited about what's ahead for Commercial Banking.

To get us started, I'm going to take you back 10 years and I'm going to do that for three reasons. The first is, in 2008, we integrated the Commercial Term Lending business from Washington Mutual. It's actually hard to believe it's been that long. The second reason is, during this timeframe, we commenced our Middle Market expansion efforts and I'm going to speak to that in much more detail in a moment. And finally, our strategy in Commercial Banking is to invest through the cycle, take a long-term view and a 10-year context provides the right perspective.

Over this period, we're proud of how our team has executed and the market leadership positions we've established. We've opened up 67 new locations across the United States and we've added 650 net new bankers, and you have seen the outcome in our numbers. We selectively have gained share across all of our businesses and this has added high-quality loan growth and high-quality deposit growth. Net-charge-offs have been less than 10 basis points for each of the last seven years, revenues have nearly doubled over this 10-year period, and our net income has tripled.

A key part of this success has been our targeted organic Middle Market expansion strategy. We have created a nice-sized bank from scratch, and we're now local and active in 39 new MSAs and through these efforts, we've added 2,800 new clients, built a \$15 billion loan portfolio and an \$11 billion deposit franchise. It's not lost on us that others are watching and attempting to replicate our strategy, but we believe we have a winning model and we believe success for us will continue in these new markets, given the quality of our team, given the quality of our brand in these communities, our comprehensive platform that's specifically designed to serve Middle Market clients and our unique ability to grow with all of our clients over time.

Now, as you can see, we're nearly two-thirds of the way towards our stated \$1 billion revenue target here and the overall potential that's remaining is tremendous. Note that we specifically did not set a timeframe to hit this target as we're going to continue to build and execute with patience and discipline. I want to point out that when we enter these new markets, we invest for the long-term, and over time, as we gain share, we achieve significant operating leverage. So, just in the last three years, we opened 22 new locations across the country, and while we do this, we connect all the dots and we deploy our proven formula.

We're truly active and engaged in our communities, we're delivering the full platform in power of JPMorgan Chase, and our goal is to build the best team and bank only the best clients. The foundational investments we make up front are meaningful and are now largely in place, our bankers, the support teams, the real estate, essentially our operating infrastructure. So, as our presence matures, these newer markets will drive revenue growth, margin growth and returns for many years to come. So, it's important to point out that while we're currently in each of the top 50 MSAs, in about half of them were new entrant.

The growth opportunity for our Middle Market business is not simply limited to this expansion strategy. As you can see from the map, the potential nationally is enormous. The orange represents 38,000 prospective clients identified, prioritized and cataloged based on data-driven analysis. Notably, some of the most exciting opportunities are in our legacy markets, like right here in the New York City area where we've been for many, many years and also are clearly a market leader, we've identified over 1,500 great potential clients. The same is true for many of our other heritage markets, notably Chicago, Dallas, Houston and others, markets where we've been for over a century.

We're also well-positioned in cities with high concentrations of specialized industries, so technology hubs like San Francisco, Seattle and Austin, and where life science cluster cities, like Boston, Philadelphia and Los Angeles. So, overall, we now have teams in our 116 locations and these markets account for about 70% of the U.S. GDP. So, we have boots on the ground on top of the U.S. economy. 75% of these markets are within our retail branch footprint and this helps us tremendously. Many of our clients actually use these branches. It underscores our presence and our commitment to these communities, and this benefit is only going to increase over time as Gordon and his team move into many more attractive markets.

We're equally excited about the opportunity to grow our Commercial Banking business internationally. So, right now, we serve U.S. clients overseas. This is a big competitive advantage for us. It's a big differentiator for us to go to follow our clients in the international markets. We also cover U.S. operations of foreign multinationals, but to date, we have not focused on the parent companies in country. So, to capture this opportunity, late-last year, we announced our plans to serve these non-U.S. headquartered companies in select geographies.

We believe now is a great time to do this. The banking landscape globally is highly fragmented. Many of our competitors in these countries are distracted at the moment and we believe there are a few that are capable of serving these clients the way we can. Moreover, the fundamentals are quite supportive as the market for international mid-sized corporates is expanding and foreign direct investment into the United States right now is \$4 trillion and increasing.

So, we recently established teams across six countries in Europe and we're targeting high-quality mid-corporate companies. Many of these names I'm sure you've heard of, many have been in business for hundreds of years, and just like in the U.S., we're looking to bank only the best clients. We're not going to limit this simply to Europe. The work is underway to do the same thing selectively across the Asia Pacific region. This is a natural extension of what we do today. It follows our successful U.S. model and it lets us build upon our existing in-country capabilities and leverage JPMorgan Chase's global platform. So, we're off to a great start. The reception in these markets has been quite positive and we're looking forward to banking this exciting and growing client segment.

So, as many of you know, over the past several years, we established 17 industry-specific coverage teams. These teams provide deep sector expertise and deliver specialized solutions. Importantly, this has also helped improve our ability to manage risk through dedicated industry underwriting channels. And this was certainly evident during the recent oil and gas downturn where our credit performance clearly benefited from the expertise of our seasoned energy-specific underwriting team. We're excited about the opportunities that we're seeing across all 17 of these industries, but I just want to highlight two in particular this morning, starting with our Government Banking segment.

So, in many regions around the country, we've been unable to serve state and local municipalities without a physical branch presence. So, now with CCB's branch expansion, we'll be able to support meaningfully more local government and higher education clients in these markets. And this will represent a significant expansion in the addressable market for our Government Banking team.

Second, we're investing in specialized bankers and solutions for the rapidly growing innovation economy, so think Life Sciences, Technology, disruptive consumer companies. The opportunity here is massive. As an indicator of that, last year, Venture Capital invested about \$100 billion just in the United States just in a single year. This is also a sector where the competition is much more concentrated. But we believe given the breadth and quality of our capabilities, that no one is better positioned to support these high growth companies.

One of our biggest competitive advantages, especially with these fast-growing clients, is our unmatched abilities to serve them throughout their lifecycle. We can support our clients' needs at every step along the way, from opening up their first operating accounts, to expanding overseas, to funding an important acquisition or to taking their business public. And because we can deliver the best investment bank, the leading private bank, comprehensive global payments and digital capabilities in an extensive branch network, it is truly impossible for our clients to outgrow us.

To further this advantage, we're investing across the treasury management continuum, and you heard from Takis this morning, we're making significant investments in our digital and payments capabilities, and this work is critical to our value proposition, it serves to greatly commoditize our overall offering to our clients. But more importantly, as Takis said this morning, it allows our clients to accept any method

of payment in any currency across the globe, allows them to connect with us in whatever way they want from a single global exchange to APIs, and it lets them use our data-driven insights to optimize their business.

Moreover, in Commercial Banking, we have dedicated specialists that are working directly with our clients providing focused consultative coverage and this is driving real value for our clients. It's enhancing their working capital, we're improving their cash management processes, we're lowering their treasury operating costs and we're protecting their businesses. These capabilities allow us to build extremely deep, extremely close relationships with our clients on a foundation for gathering and retaining long-term, core stable operating deposits.

So, Investment Banking, our partnership with Investment Bank continues to be highly successful. We've showed you this slide, versions of this slide over the past several years, we're quite proud of it. Our teams are very well connected and it's actually a – it's a key growth driver for both of our businesses. Last year, Commercial Banking contributed about 40% of CIB's North American Investment Banking fees. And for us, being able to deliver the number one Investment Bank locally deepens our strategic dialogue and it completely separates us from most of our competitors. And even while these are market-dependent revenues, and as Daniel described, the wallet has not been growing, in fact contracting in many years, we have grown Investment Banking every year since the JPMorgan/Bank One merger in 2004.

And 2018 was no exception, we generated a record \$2.5 billion, we completed 900 capital markets financings and we advised on 100 mergers and acquisitions. We're especially delighted with the progress we're making in small business in Middle Market. Our revenues here have grown 20% on a compounded annual growth rate over the last three years. So, even though, we're facing a shrinking wallet, we're looking forward to continue to grow and we expect to head – march towards our \$3 billion target and we're excited about the overall potential here, especially as we continue to add great clients, we also think the expansion of our business internationally is going to be a big contributor to our Investment Banking business.

So, let's change gears to Commercial Real Estate, as all of you know, growth for us here has been highly-selective deliberate and disciplined. We are the number one multifamily lender in the United States. We've relationships with top-tier developers and investors in very targeted markets and asset classes. And our Community Development Banking team has been quite active in helping transform properties in distressed neighborhoods around the country. Commercial Term Lending, we have a huge scale advantage and we're continuing to invest to deliver even more value. An excellent example of this is our proprietary loan origination system, CREOS.

We've talked about CREOS at prior Investor Days. Today, we're using it to process a 100% of our Commercial Term Lending volume, and loans that go through CREOS, 40% of them close in less than 30 days, which is dramatically faster than anywhere else in the industry. Speed and certainty of execution are critical to this client base, because it allows them to be nimble in pursuing opportunities. So, we give them a simple documentation, a straightforward process, and let them focus on running their business. And our strategy here has always been to deliver the superior execution and client experience rather than compete on pricing, terms and credit.

So, let's talk about Credit. In Commercial Banking, as it is across the company, Credit is a common language. Credit discipline is core to our culture. For us, loan growth is an outcome; it's not a strategy for the business. We take a through-the-cycle approach and it all begins with banking the right clients. And for us, this has led to continued strong credit performance with consistently winning to be one of the best in the industry. Since 2018, our average overall net-charge-off rate has been just 25 basis points. Our underwriting teams are highly experienced and embedded in the markets and the industries they support.

So, as we look forward, we're continuing to be highly selective, we're staying true to our underwriting discipline, we're monitoring new originations, maintaining our discipline, not competing on structure and leverage, and we're avoiding the riskier financings in the market. We do recognize that we're in the late stages of the economic cycle and market conditions, credit conditions aren't going to – they're not going to remain this benign forever. So, as such, like many of my partners, we've been taking steps to prepare for whatever might come.

We've developed detailed playbooks for a variety of downturned scenarios. Importantly, we've significantly reduced or eliminated those activities across Commercial Banking which contributed to about half of our net-charge-offs in 2009 and 2010. And as I mentioned earlier, we've also expanded our specialized industry underwriting channels. This is something we didn't have going into the financial crisis, so now 40% of our C&I loans are underwritten by an industry specialist. So, all this downturn conversation aside, we don't see any broad signs of stress right now and we would expect our 2019 credit performance, as Marianne alluded to, we would expect it to look very much in line with what we saw last year.

Let's talk about C&I. In C&I, our clients overall are in excellent shape, business sentiment is upbeat, clients are benefiting from tax reform, sustained low rates and stable economic fundamentals. As such, we feel very good about our portfolio, it is well diversified across both geography and industry, it's high quality and granular, and the financings are very well structured. Nevertheless, here we are consistently looking for possible signs of weakness or stress at every detailed granular level.

We're focusing specifically on sectors that are under change or are undergoing change or feeling pressure, industries like auto, retail and energy for example, and we're watching for clients that could possibly be impacted by ongoing geopolitical dynamics, a major change in tariffs globally or Brexit. But right now, we aren't seeing any major signs of stress. We have no signs of any concern in the portfolio. We remain very confident in our underwriting.

If you look at 2018, our C&I loans grew 3%, and for us, this feels about right, especially given where we're in the economic cycle. We're especially pleased with the growth we're seeing in areas where we've chosen to invest, specifically our specialized industries and our new markets. And while competition for high quality assets remains quite strong, we are finding attractive opportunities to lend, and spreads in our markets have – since stabilized, we felt a lot of pressure earlier in the year.

More broadly, as we step away from our portfolio directly, more broadly, we continue to believe that the riskiest part of the C&I loan market relates to financing the buyouts of small private companies. And as we've stated in the past, this is intentionally not a market that we've prioritized, and I'll also say that nonbank lenders remain quite active, but also here they typically focus outside of our core risk appetite.

So, it's a similar story in our Commercial Real Estate business. We're maintaining our underwriting discipline, conservative approach. We're examining market fundamentals very closely and staying close to the loans and markets that we know best. Generally, we believe we're in an extended peak in Commercial Real Estate. This is being supported by strong employment and steady wage growth. However, we are seeing some signs of late-cycle characteristics, some nonstandard transactions are creeping back into the market. Competition has remained extremely elevated, especially from the GSEs and other nonbank lenders. And we're watching certain Commercial Real Estate sectors, specifically in some sectors and regions, notably retail or suburban office properties.

As with C&I though, we continue to feel very good about our portfolio. Our Commercial Real Estate business is designed to thrive through-the-cycle. We're supporting high quality investors and developers. We've intentionally targeted cycle-resistant sectors and regions with limited exposure to some of the more volatile asset classes. And I should note that our construction portfolio, you should expect that to continue to contract as we maintain selectivity at this point in the cycle. When you think about Commercial Real Estate for us overall, remember that two-thirds of our portfolio is related to Commercial Term Lending. These are funded term financings for stabilized apartment buildings with predictable cash flows and low leverage. They're typically B and C-type properties.

We're targeting large densely-populated markets. These markets are supply constrained markets like New York City and Los Angeles. They're rent by necessity, markets with high construction and land costs, the portfolio is highly diversified and granular, our average loan size is about \$2 million, and if you look at our originations in Commercial Term Lending last year, the average loan-to-value was less than 50% and the average debt service coverage was better than 1.5 times. And importantly, as you look at this underwriting, our underwriting does not assume rents are raising and also factors in a cushion for underwriting rates.

So, for Commercial Real Estate overall, we're very pleased with how the business performed in 2018. We had originations of \$24 billion, loan growth of 4%. We did – as I mentioned earlier, we did see some significant spread compression earlier in the year, I think in the wake of tax reform, but across Commercial Real Estate, those – we've since seen spread stabilized as 2018 progressed. And for the Commercial Bank overall, if you look at our credit portfolio and the fundamentals, we feel, as I said, very comfortable in our underwriting and quite confident in the overall portfolio.

So, let's talk about expenses for a moment. Being a part of JPMorgan Chase gives us a tremendous scale advantage and our relentless focus on expenses has led to our industry-leading cost structure. Nevertheless, we're working very hard to transform several critical processes, so onboarding, service and credit, and we think this will bring a significant incremental efficiency across our business. We are fortunate to have the capacity to make smart, long-term investments, regardless of the macro environment. And as you've heard from me this morning and as I've described, there are significant growth opportunities right in front of us. So, therefore, you should expect us to continue to make these strategic investments to grow and improve our franchise while maintaining an efficiency ratio target of 35%.

This sustained investment has been a key driver of our strong performance and it reinforces our strategy. We are spending more and more time with our clients and our prospects. In 2018, we hired 150 new bankers, we made 30,000 more client calls, and to no surprise, we added over 1,200 new relationships. This client focus helped us deliver terrific financial results last year, record revenue of \$9.1 billion, up 5% year-over-year, net income grew 20% to a record \$4.2 billion, and our credit performance remained excellent with net charge-offs of just 3 basis points. Overall, the growth in the business and our credit expense and capital discipline led to a 20% return on equity.

So, if you look forward for Commercial Banking, we're making steady progress against all of our financial targets. We're maintaining our \$1 billion target for our Middle Market expansion effort and our \$3 billion target for Investment Banking revenues. For international, given our new broader global coverage efforts, we're increasing our target from \$500 million to \$1 billion to include all of our international activities. And as I just mentioned, we continue to target a 35% efficiency ratio, we believe, this is the right cost structure for the business. And finally, we believe we can maintain very strong returns even with higher capital and have kept our 18% medium-term return on equity target.

So, to wrap up, I hope you can see why we're both incredibly proud of the business, of the franchise and excited about the opportunities ahead for us. Our clients are choosing us because we have an exceptional team [of bankers], we're local (sic) [they're local], they're specialized, they're engaged in their communities. We're supporting them with comprehensive solutions and we have the ability to grow with our clients as they grow. We're not standing still. We're making strategic investments across our business to deliver them even more value, and we're doing all of that while providing the safety and security that they expect from JPMorgan Chase. All of this ultimately comes down to us helping our clients succeed and we never lose sight of that.

So, thank you all again for being here today. I'd be delighted to take any questions. Mike?

QUESTION AND ANSWER SECTION

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Well, I'm excited and nervous about your expansion, so excited to the extent that maybe you can help out Gordon Smith's area. You're already in Boston and Philly and Washington, D.C. So, to what degree can you help with the new market retail expansion, and the nervous side is the expansion into what Italy, UK, Spain, Germany with Commercial Banking, so that's a newer area with new risk.

Douglas B. Petno

Chief Executive Officer-Commercial Banking, JPMorgan Chase & Co.

A

Yeah. Are there couple of questions in there or you just [indiscernible] (03:53:20). So, we – having Gordon's expansion is fantastic for us, and Jamie said it many times, you would not have a Middle Market business without branches, 18 (sic) [13] million branch transactions a quarter (sic) [year]. The other thing, we're in Boston, but we don't have a Business Banking small business franchise there, it's a huge pipeline for us as companies grow out of Business Banking and coming to Middle Market. And when we all lock arms together and all four lines of business are in the same city, it's pretty hard to beat us. We have philanthropy, we have local engagement, we're touching the whole value chain across consumer and wholesale is a pretty powerful thing. So, I don't know, I'm actually benefiting more from Gordon than I'm helping him I think in this case. But I think when you put the four pieces together in any one of these new markets it's going to be hard to stop us.

On international, look, nobody is more cautious and concerned about that than I'm going to be. I intentionally try to point out these are household names. And we've covered – Daniel covers large corporates in these markets and he has for decades. So, just think one notch pull up, there's a full set of clients that our Global Corporate Bank has not covered and we're – they're active in we're going to serve them the way we're serving the large corporates that Daniel is covering already. We're going to rely heavily on the compliance, risk and control architecture and infrastructure in those countries and we're going to be very careful.

It's not a loan – we don't think it's going to be a loan growth-driven business. We think our competitive advantage is they're (sic) [we're] inbound U.S. Treasury, Investment Banking and risk management so foreign exchange and commodities and currencies, and we'll keep you posted. But we share the same concern, it's a step out for us, but I have a passport. We've been to these countries and JPMorgan Chase has been in every one of those countries for a long, long time. And we're working hand in glove with Daniel's team and we have the right risk people wrapped around it. Any other questions?

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Yeah, back here.

Steven Chubak

Analyst, Wolfe Research LLC

Q

Hi. Steve Chubak, Wolfe Research. So, Doug, first question I had is about the credit outlook. Charge-offs continued to be quite low. Last year, you guided to about 10 basis points in terms of medium-term charge-off guidance. I'm just wondering as we get deeper into the cycle, how you're thinking about through-the-cycle loss expectation for both the CRE and the C&I channels?

Douglas B. Petno

Chief Executive Officer-Commercial Banking, JPMorgan Chase & Co.

A

Well, I mean, I think it's just going to depend on the when a downturn happens, if it happens, how severe it is. I think we all reflect on the global financial crisis has been sort of a proxy for what the next recession might be. If you look, our peak charge-offs in the crisis, it was 1% in 2009. Our average, as I said, since 2008 is 25 basis points. So, without knowing the duration or the severity of the downturn, it's really hard to have perfect predictive capability of what our losses might be. But what I would say is, I'd reiterate the points I made earlier, we've taken significant steps in my view to make the portfolio even stronger, better industry underwriting, we eliminated activities that caused us issues in the past.

While we have more loans, I think we have a higher quality portfolio, and many of my partners presented, we're not waiting around for it to happen. We're getting ready, we're understanding where risks might rise, we're looking for weakness in our portfolios, we're working very closely with clients to make sure they have capital structure and financings that can get them through whatever kind of economy comes down the road. So, I would point you to our historical performance as the best proxy for what you might expect going forward, but much depends on what we see in terms of the downturn.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

All right. Time for one more if there is one. Okay. Then let's break for lunch. See you at 01:30 sharp.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

Okay. Come on in. We are less than a minute away from 01.30. So it is about time we go and get in. It's starting at 01.30, if not sooner. We've got Jamie Dimon coming up. He's going to speak for a few minutes, and then I would assume you're going to take a bunch of questions.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

Jason, thank you very much. Welcome everybody. Thank you for coming today. I think we have plenty of time for questions. I only have a few comments that I want to make and kind of reiterate some of the themes you heard today. Theme number one, we run the company to serve customers, a lot of the things that end up are outputs, some of the loans, some of the products, some of the services, some of the results, we are adults about the outcomes. Obviously a lot of things you can do that can manage risk, prepare for things like Brexit or trade wars, et cetera, but at the end of the day our job is to service clients extensively through a series of time with people, technology, branches, and we're always going to be relentless on that.

There are things I'm not particularly worried about, but there are risks. You always get asked what are you worried about? There is a growing list of things that you would put on the list, and Ashley worries about it all the time, and it's Brexit, trade, China, Italy, Saudi Arabia, eurosclerosis, it's fintech, competitors, they're all there, they're all things that the company has got to worry about all the time. We do, but it's not the thing we worry about the most. The thing we worry about the most and if you're on the management team, you've heard me talk about this before is complacency, arrogance, bureaucracy that stop us from facing these other issues. We're prepared to face them and we know them.

We are prepared for a recession. I saw one of the things that came across the tape saying that J.P. Morgan is preparing for a recession. We're not predicting a recession, we're simply – we're pointing out that we are very conscious about the risk we bear as a company when it comes around, particularly credit, markets, et cetera and manage the risk exposure. You should know that in a recession, okay, we're adults, we're going to continue to service our clients, we're going to manage the risks, obviously financial results will get a little worse but it's also an opportunity to shine for your clients and your communities.

And one of you also mentioned about this competition because it's very important that boy, we got, there's going to be competition from the Chinese, the big Chinese banks, Tencent, Alipay, you saw a whole bunch of people announcing fintech companies and there's going to be fee compression in every business we're in for the rest of our lives. So I'd look at that as yes, there'll be fee compression in every business we're in for the rest of our lives, it's called capitalism. That is what happens. You have to give your customer more, better, faster and quicker in one way or another to do a better job.

I do want to mention we don't run the company for accounting profits. Okay, we're fanatics about accounting. So Nicole Giles is here and Kathryn Kaminsky is here, our fabulous Chief Auditor from Pricewaterhouse and our Controller. We are fanatic – we want to book every asset properly, every liability properly, we want to recognize things, I'd prefer to defer profits than to book profits up front. I think you've seen a lot of companies do some really stupid things to get results. I do want to point out that accounting profits, okay, can sometimes be a fiction. I'm going to point out a few little things, okay.

In the Credit Card business, you heard Marianne talk about CECL. We have to put up reserves for the lifetime of credit cards, okay. But you don't present value the revenues, you present value the losses. Worse than that, when you've built the Sapphire card and it cost \$400 or whatever it cost to market a Sapphire card, someone came up with the idea that marketing for credit cards, you expense over 12 months as a contra to revenues. I personally don't understand it, but you think we care about the \$400 marketing expense as opposed to the NPV of the card. So we're going to run the company for actual things.

One other negative about these accounting things is accounting is also go into models, they go into G-SIFI, they go into the CCAR and they're inaccurate. You saw a bunch of people talk about TS today, they're \$11 billion of revenues. TS, custody, asset management, they are like annuity streams. They provide a huge base of earnings for this company that we can grow. We don't present value the revenues and present value of the expenses and put it on as a revenue or something like that. Of course not, we do an MSR. I know why that happened years ago. But, so again, I might point out, we will look at what's the real risk? What are we doing? How are we serving the clients and recession planning does not mean, okay, that we're going to stop building our branches, stop spending on marketing, stop growing our bankers. It does not mean that, it's the opposite, okay. We will take advantage of a recession to hire better bankers, to have more effective marketing, hopefully to do things and hire people we maybe couldn't do before, okay. And so, we kind of look at it a little bit different ways sometimes.

And Corporate Social Responsibility, Peter Scher is here who runs that. I think it's become an integral part of our company. We have never been confused between having to do a good job for a shareholder, a good job for a customer, a good job for our employee and a good job for our community. They're all the same to us. They're part of the fabric that makes J.P. Morgan a trusted and respected company.

The biggest difference today in CSR is everyone in J.P. Morgan as a group is involved in it and is far more focused. So as opposed to just charitable giving for certain things it's around things that JPMorgan can uniquely provide capital to – special capital for affordable housing, for work skills, for jobs, you can do it around the world and it works in conjunction. So we have things like the – you've heard about the amount of women who work here. We have the Women on the Move, we have the Advancing Black Leaders and the Advancing Black Pathways that we are particularly proud of. But those things are extensive, multi-year sustained efforts to do a better job for parts of the community who need a little bit of our help.

So one really creative thing we've done is the Entrepreneur of Color Fund, okay. Mayor Duggan came up with the idea, it wasn't a JPMorgan person, that Entrepreneurs of Color have a harder time getting capital to grow their small business because they don't necessarily have the family to fall back on or their house or network to fall back on. So we're starting to do something that I'd call non-standard financing which makes it far more sustainable for Entrepreneurs of Color, women, women's small businesses and possibly even affordable housing and possibly some infrastructure et cetera, that's become a critical part and lifts up our company and lifts up our communities.

We are cloud, Lori is here too. We didn't have a tech session here. But I think you should look at it as we are devoted to investing in tech relentlessly over time, okay. We probably are a little bit slower – not slower than everybody else, slower in cloud and I'm the guy to blame. I couldn't stop looking at it as outsourcing by another name. But the fact is we're doing it as rapidly as we can both internal cloud, external cloud done the right way. There is no reason to hesitate on cloud, agile and AI itself you call AI/Machine Learning, big data is real. It's used extensively for phish, fraud, underwriting, prospecting. But really it's the tip of the iceberg and what those things can do. And then HR, there is nothing more important than our people. We're going to be prepared, it's going to take away jobs which very well may, where robots and AI can handle call center jobs, to retrain our people, use attrition as our friend and train the people there for both jobs inside J.P. Morgan and possibly outside of J.P. Morgan.

But I think the most important thing that I hope you saw today is the management team which it's hard to see it all the time but it's open, it's usually the good, the bad, and the ugly, they all work well together. They all help each other. These businesses, when we go into a town, think of these, you heard about the D.C. branches now Boston, Philadelphia, all over, but we're all going to town. Basically everyone goes in and we kind of go in with philanthropy, we go in with small business, LMI lending, we go in with our Commercial Banking, Private Banking, high net worth banking, it does work and the town is better off. And so it's early stages in some of those expansions, but I think they can pay off enormously over time.

So I'm going to stop there and open the floor to questions or comments whatever is on your mind that you want to expound upon.

QUESTION AND ANSWER SECTION

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Mike? Yeah.

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Mike Mayo, Wells Fargo Securities. You spent \$11 billion a year on technology. How do you know if it's effective spending. And also why not expand the mobile digital banking outside the United States?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, in the first one, I mean the biggest question is – it's not just technology, are you getting what you need. So my view is we are going to build what we need to build to be the winner sine qua non. No one in the management team is allowed to come in and say, well we couldn't afford it. It's not on the list. I can't get around to it. We may not get around to it because we can't sequence it properly. But so the biggest part, I think you heard Daniel mention, Gordon mention is, we review very rigorously everything we do, what we're getting, how we're getting it, can we do it faster, we can make it more productive. You'll never be perfect. You mentioned in your report, which I thought was quite good by the way, that 20% or something of that tech spend is often thrown away. I think you're absolutely right. I think it takes a diligent management with the right people in the room over and over, acknowledge your mistakes quickly and every now and then we screw up a technology build. You've been building for two years but if you acknowledge it you probably knew a year earlier and you could have made a different decision. So it's just trying to get discipline around doing it. I think we're quite good at it by the way, but you can always get better. I think some of these new tools do make it far more efficient than in the past. Getting people in one set of platforms, tools, et cetera can be critical too.

Now the second question was...

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

Retail Banking outside the U.S.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So retail – yeah, retail, we've always said we're not going to do retail banking outside of the U.S. because we didn't have a reason to win. We're opening these 400 branches. On average we call the four walls inside and close to a million and a half or whatever the structure is something like that. Everything else we do, think of statements, risk, fraud, audit compliance, AML, et cetera isn't necessarily incremental cost, huge economies of scale. And we have brand recognition et cetera. If we went to a foreign country, remember you have different languages, different statements, different systems, different laws, different compliance. We get to build the four-wall cost and everything else and we'll be losing money for the rest of our lives that's why we don't do it. And you've seen people try that. And by the way, there is no reason if you go to India, and ICICI or China Merchants Bank or ICBC, et cetera that you'd move to Chase. There is no reason to do it, so it isn't like you have a real competitive advantage as opposed to Washington DC. It is possible digital changes that. It is possible in the new world though you have a lot of digital competitors out there and I've yet to see kind of like block chain, it's a lot of talk but not a lot of action.

Betsy?

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Yeah. Jamie, I just wanted to drill down a little bit on payments and you obviously have taken a piece of this tech budget to build out a terrific payments network both on the wholesale and the consumer side. Do you have a significant amount of room to leverage that internally? Do you feel that it's something that you could white label to others? Do you expect over time to have that be the primary tool for your clients to deliver international payments to their suppliers and distributors?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

It's kind of yes, yes and yes. So we have on digital payments – look at the industry, okay. We made a mistake not to do Zelle two years earlier or three years earlier and we almost had the existing things you needed to do P2P and we do it for free but it is an important thing that customers want to be able to send money to friends, each other and eventually C2B et cetera. So, absolutely real time payments were up and running. That was done by the TCH, though J.P. Morgan is the first to go. J.P Morgan Coin could be internal, could be commercial, could one day be consumer et cetera. But we think that payments for both consumer and wholesale is kind of one of the most important things we do is moving people's money in a sound, secure, safe way which we already do. Some of these things will just reduce the cost to make it easier. So we just consider it critical and most of the people in the management team that were up here and most of the other people in the room serve on some form on payments committees – strategic payments committees.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Do you think that you can max out in the current structure or is there the potential to maybe spin that out to enable an even bigger network to leverage off of the system that you've created?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Well, we have the biggest network in the world already. That's a good question. I don't have an answer to that. So if you raise that question here, you know what I'd say to you, answer the question. So, Takis can go answer that question now. Go figure out if we could find a way to do something for JPMorgan Chase by white labeling something, we'd consider doing it. The biggest issue I've always had with something like that is it distracts your own company from your own purpose as you're building out something for a third party who is usually very demanding if it's in the wholesale business. I'm always going to question that, but I'd be open-minded.

Guy, over here.

I should mention by the way something that you talked about. So, I mean, you went pretty quickly through You Invest. I look at what this company that can offer contactless cards, You Invest, payment systems, answering questions on the phone, linking into your small business, bill pay. And we have these other things we're working on to make bill pay easier for C2C, I mean B2B is tough, so I think those things are all critical to building a better company. How you design those products in the continuum – that may change over time, but we kind of have everything. And on the investment side, total deposits in the United States are \$10 trillion or \$11 trillion of which \$8 trillion or something is retail or \$9 trillion. Total assets under management of customers is \$40 trillion. I mean it's a pretty big market which we have a very small share of.

Yeah, Guy.

Guy Moszkowski

Analyst, Autonomous Research US LP

Q

Yes. So it feels like we always have to ask regulatory and capital questions. I picked up on something that I think Marianne talked about earlier which is that the Fed, the regulators apparently seem reasonably receptive to the commentary on the volatility of the stress capital buffer as laid out, and I was just wondering if we could get a little bit more of a sense of where you think that might go? And then a follow-up there is, we talked earlier about CECL and the impact on availability and pricing of lending during a downturn under that regime. And what kind of reception are you getting from regulators when you talk to them?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

So again, I want to just – we don't run the company for regulatory stuff, but we satisfy regulators. We're going to build clients and as you saw – tons of organic possibility, that's what we do and all that other stuff we kind of try to navigate around. So I think look, if you look at the regulators, I don't think a lot has changed in the last nine months. I think that the Fed has pointed out a lot of issues that they understand around G-SIFI, CCAR, FRB, LCR, what's counter-cyclical, what's pro-cyclical, the systems we built are hugely pro-cyclical now. They were pro-cyclical in 2008, they're even worse today.

And CCAR, and they are inconsistent. CCAR has a counter-cyclical buffer in it, right, because it's guessing what you're going to do. But I always say what are you going to do with CCAR when there is a recession. Are you going to double-down, are you going to go from 9% employment to 16% and if we do that every base will pull back going into recession because they can't handle the next CCAR. CECL makes that worse. They actually build it in. So think of JPMorgan – it's unlikely that we won't make the economic right decision for a client in regards to the accounting.

But I would tell you if you're a mid-sized bank, where you have 100% loans to deposits and you're going into this and a lot of their loans will have higher loss rates. So their loan loss reserves will have to go from 2% to 4% to 6%. They may have to pull back dramatically to free up capital. And so I don't know what the regulator is going to do. I think the folks at the Fed are very smart. They're going to think it through. I don't think these things have been calibrated or thought through. So CCAR has a counter-cyclical buffer in it, G-SIFI has none. G-SIFI isn't risk weighted at all. The U.S. regulators gold plated G-SIFI. Randy Quarles who now runs the U.S. regulatory supervisory regime is running FRB. And I think it will be pretty obvious to him that a lot of G-SIFI was set up as a way to hurt American banks. That's why it was put in place, in the first place and I could do all my due diligence the emails, I can probably prove that to you.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Okay. Gerard?

Gerard Cassidy

Analyst, RBC Capital Markets LLC

Q

Thank you. Gerard Cassidy, RBC Capital Markets. Jamie, I know you're not predicting a recession, you're preparing for one. Can you compare this time period to prior cycles. Does this feel more like 2004 to you maybe or 1996 when the Fed obviously in those time periods ended they're tightening cycles?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, if I make a list of risks, Michael Cembalest, I don't think he is here, made a list of all the geopolitical crises since World War II. There are almost like 50, and you have multiple wars, you have our Vietnam War, China-Vietnam War, India and Pakistan both nuclear powers had battle skirmishes. China had battle skirmishes, Russia, there have been seven or eight Middle East crises, multiple in Afghanistan, multiple in Iraq, you can go around the world and only affected the global economy. So I'm telling you that geopolitics is the risk. But you have to look at that relative to the context et cetera.

Now you have a whole bunch of other ones in my opinion. I put Brexit in that category, we don't expect a hard Brexit, but that would be really difficult for Britain and Europe if that happened. Italy where their banking system is under stress. You have QT, I look at that little bit as we don't know exactly what QE did, so we don't know exactly what QT is going to do. It's a legitimate thing for people to worry about. I think that would be very responsive and thoughtful, so I'm not worried about it, but it may have consequence in liquidity et cetera. You do have consequences of liquidity of all these regulatory systems and rules et cetera. So those are – and some of those – a lot of them are manmade, okay. You have less American leadership in the world today. How would you factor that into risk? That to me maybe the biggest risk out there, okay, that both the UK and the United States used to be kind of the world's stable leaders are no longer. I think the UK was very important to how the EU is structured. So I do think there is mounting series of risk and the next recession may be caused by some cumulative bunch of things that we just don't understand today. Think of straws on the camel's back. It may not be one thing.

If you look at prior recessions, there were like four or five ultimate causes. One was geopolitical, which is the 1973 Middle East crisis, one or two are traditional, which is that industry was expanding and it is spending money, but inventory had started to go up, they had to pullback,

confidence went down, industries pulled back, wages went down I'm going to call it a typical one, once or twice it's because of fiscal tightening, is that possible? Today it's possible and a couple are because of traditional Fed tightening. The Fed wants to slowdown growth because inflation is picking up and they want to slow it down.

Take that whole bunch, fiscal, Fed, industrial, I don't know. I think this one will probably be different than almost any of those and it may just be the cumulative effect of policies around the world and their effect on confidence. And remember confidence, consumer confidence was at an all-time high, consumer and business, and now it's off 20%, it's still in the upper quartile. But confidence is one of those things if it goes down quickly, people do pull back, stop spending, stop doing things, companies get nervous, stop hiring and it's self-fulfilling.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

John?

John Eamon McDonald

Analyst, Sanford C. Bernstein & Co. LLC

Q

Jamie, you've got a great management team, it's really helpful for us to see him each year here. Can you remind us how you and the Board think about succession planning, making sure the team gets exposure to all the different businesses and how you feel about enjoying your job and not going the George McGovern route that you've talked about and what you'd like to do?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

George McGovern route? He lost.

John Eamon McDonald

Analyst, Sanford C. Bernstein & Co. LLC

Q

Not starting a restaurant.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

I'm not going to start a restaurant. I made a joke once that I'd like Cheers – you know the show Cheers – that I'd like to be able to walk into a restaurant and everyone actually knows who you are. And I'd say the best way to do that is to own one. So, but I love my job, that's not the issue. The Board succession is a Board level issue, okay. Succession is not up to me. The Board meets every single time without me and every single time they meet, I'm told, they talk about succession. The best way they should do succession – and I think we have – you've seen tons of people – I think we have lots of people, direct reports who can succeed me and non-direct reports. The Board knows them all. All these people presented the Board many times, they've been at dinners, they can see them, they are free, it's completely open, they get to present, they get to ask me, would you mind bringing so-and-so back? So they have a hit by the truck plan, they have a plan that they look at more three to five years out which might be slightly different. And it's kind of an ongoing process. It's a living and breathing type thing.

The biggest fear, if you were at the Board, you're also going to worry that we lose our good people. So the other way around too. So...

Mike Mayo

Analyst, Wells Fargo Securities LLC

Q

If I can just follow-up on that on John's question, so if the Board wants you to stay and if the company is performing well, how much longer do you think you'll be CEO?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Five years. Maybe four now.

A

Aren't we down to four.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Look, to me that's not the important thing. The really important thing is that the company, the next person to be the right person. And that I would not lose the right person, so I can stay an extra year or two. I think that is a mistake. And I think we have some great people and also to me it's the culture of a company that the people are smart, they talk to each other, they're honest. You don't have a lot of special deals. They don't worry. They understand what you've heard over and over – fortress balance sheet, proper accounting, serve the client, don't overreact. The reason against forecasting earnings is how many people have, because they're going into a recession, they've got to maintain, got to hit their numbers, have pushed stuff in the retail channel, got more aggressive in accounting, not hired the people, slow down the branches, cut back the sales meetings. It's all wrong. It's just a terrible way to run a company. So to me that causes, those are the most important things to sustain. The company itself is in great shape. The company, we're going to win or lose some of these battles against fintech and competitors, but not all of them. And we're going to be fine. So, it's really the quality of the people over time, but I guarantee you there's going to be a CEO standing up one day and they're going to be worried about what next quarter looks like and they'll be making a mistake. But they should tell you all is, I don't care. I don't. I never have.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Matt O'Connor back over there.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Like, you guys focus on FICC. We have one of the best fixed income business in the world. We went through a lot of change. It's still one of the best. We gain shares. It's very consistent, okay. We do a great job serving customers with execution, research, technology, bankers, traders, corporations. We've got unbelievably smart people running the area. I don't know that Jason Sippel is still here, who did a great job building up his Equity business, building all the things to serve our clients really well. We don't know exactly what's going on to happen to fee compression, volumes, the wallet size. But I do know that one thing is for sure, the fixed income markets and FX markets and swap markets and all those things will be double the size in 15 years to 20 years. Companies will still need to hedge, swap, buy, sell, as well institutions and J.P. Morgan will be right there doing it for them. And some of these things that we do like electronification, the revenues drop but so does capital, the returns to the company could be better, depending on how it all turns out.

Matthew Derek O'Connor

Analyst, Deutsche Bank Securities, Inc.

Q

Matt O'Connor, Deutsche Bank. I want to follow-up on a comment from Marianne. She talked about the cost curve flattening out after this year.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah.

Matthew Derek O'Connor

Analyst, Deutsche Bank Securities, Inc.

Q

And then essentially technology and other investments would self-fund and it wouldn't increase. So I want to clarify does that imply flattish costs as we think 2020 and beyond besides to support revenue growth? That's my first question.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

I think she showed you \$63 something to \$66 in 2019 and that some of the trends should flatten out from there. I don't think it is necessarily all flattish costs. Plus, again, listen very closely what I'm about to say, I don't want to tell you they will be flat even if we thought so in 2020 to 2021. Because our opportunities may be very much bigger than you think. If we need to spend \$1 billion to build technology, to do a better job for clients around the world, we are going to spend it. If we see an opportunity to open another thousand branches somewhere, we are going to build them and we're not going to be constrained by things which are bad for the long-term health of the company. So it can be a short-term expense target, which includes 2020 by the way. So we don't really know, but we want to be really diligent in how we spend our money.

Matthew Derek O'Connor

Analyst, Deutsche Bank Securities, Inc.

Q

And then just a follow-up. I understand you don't want to sacrifice long-term investments for short-term margins.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

We will not sacrifice long-term investments for short-term earnings.

Matthew Derek O'Connor

Analyst, Deutsche Bank Securities, Inc.

Q

Or even medium term looking out one or two years. But as you look out at the revenue environment, it seems like the outlook is for a slower revenue growth most likely and does that come into play as you think about the medium term outlook for expenses?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

No. I don't care, okay. Doug Petno is going to cover more clients next year. He's going to do loans intelligently. He's going to do TSS, he's going to try do some of the Investment Banking business. We know it's the right thing to do and yes the rates may be higher or lower than we thought. He can't determine exactly how much they may borrow. He can determine how many bankers you have in how many cities, how many clients he wants to bank them. So I think the tail is not going to wag the dog here.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Got Saul over there.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah, go ahead.

Saul Martinez
Analyst, UBS Securities LLC

Q

Jamie, you mentioned complacency and arrogance being the biggest risk factors for the organization. But it does...

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Any organization by the way. Well, go ahead.

Saul Martinez
Analyst, UBS Securities LLC

Q

Fair enough.

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Where do you work?

Saul Martinez
Analyst, UBS Securities LLC

Q

I'll continue with my question.

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Embarrassed?

Saul Martinez
Analyst, UBS Securities LLC

Q

I forgot what I was going to ask. But you're hitting on all cylinders. It feels like you're hitting on all cylinders across the organization. But what if anything do you feel like J.P. Morgan doesn't do well?

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah.

Saul Martinez
Analyst, UBS Securities LLC

Q

Where do you think maybe and I ask that in the broadest sense possible whether it's – it could be from a product standpoint, from a cultural standpoint, what do you think you can do better?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, I think, first of all one of the things about the management team which you see sometimes but if you actually sat down with Gordon, Daniel, Mary, Doug, or any of the Operating Committee members here, that's more of what we talk about the meetings. You'd think at the business meetings, you'd think we're doing terribly sometimes like we're failing at this, we're failing in this country we didn't hire those bankers, we didn't put those systems and this was late, so we actually focus a lot on the negatives, what's not working, why it's not working. We look a lot at your other companies and say, they did a better job than we did. And I don't want to go through each one, but we study all the competitors and they built this better digital thing, they're quicker to market with that, they are a little bit smarter with that. And so we actually do do those things and it gets kind of micro, you're going to go almost country by country and FICC. You got to almost go branch by branch in Gordon's world, product by product in Credit Card and some of the things we've done we don't know yet, like You Invest, Finn. We know digital account opening is a homerun. We know that bundling certain things is a homerun and we know – and a lot of things we do – we know we're going to do it anyway, we can't actually tell you how efficient they are.

So – but I think this thing about speed, complacency, I think it's true for all institutions. And my observation has been that most companies are slowing down all the time and they're getting more bureaucratic, but a lot of people in companies are bureaucratic, they're not bad people. And the meetings take too long, if meetings don't get done, there are no follow ups, it's easy. Then you come into a J.P. Morgan wherever you are and you inherited one of the best companies in the world to think that you actually did all of that, you didn't. And I harken back, I mean a lot of people have gone to work for the place where you had your business card and it wasn't like a J.P. Morgan or a Goldman Sachs, or a Morgan Stanley or Bank of America or something like that, it was a lot harder to get business and you got to learn how to hustle and stuff like that. So I just think those things matter. I just don't know how you measure them really well.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Marty?

Marty Mosby

Analyst, Vining Sparks IBG LP

Q

Marty Mosby with Vining Sparks. Jamie I got two questions, one is a big strategic question. So as JPMorgan has turned into a market disruptor in the financial services industry, who are you disrupting and what type of company would be in pass way or in harm's way as you're all rolling forward with this momentum you got right now?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah, I'm not going to mention companies, but I'm going to just mention, we've looked at certain companies out there that this stuff that we should have done, okay. I'll give an example, Square. So here we're a great merchant processing, best in the world e-commerce. They come out with this whole dongle to process stuff and it was a great idea. But that isn't how they won. They morphed into something different which was, I'm going to call it the adjacencies, okay.

So, what does the small business want? They wanted to process cash and check in debit on the same machine. We didn't give them that opportunity, Square did. And Square said, they also want data. What time did I sell my tacos, what's my inventory? So they gave an iPad with kind of a software that gives them the data. Then they also said, you know what, since we know that company and they need – at this time of the year they might need an advancement \$100,000. So they did all stuff we could have done that we didn't do. I just call it's all adjacencies or something like that.

But the biggest opportunity for us is the \$40 trillion investments. So, you've already heard, we went from one private client branch, it was an experiment and a test, I forgot the year, probably 2008 or 2009, it's something like that. And in fact it didn't work at first and a bunch of people wanted to close it down. I was like we're not closing it down. We put it in White Plains which is probably one of the wealthiest districts in the world and we kept on modifying it and eventually it started to work, okay. And then we have something like 3,000 and we've only got 1% market share of what you would call that segment, okay, 1%. And of course, it's not the hard to say why not 10%? I don't think we'll accomplish 10% in two years, but you know the folks here, why not 10? And branches, why not 8,000? They may be different, they may be small, they may be in buses for all I know, but the fact is there's a lot more to go and people need help, they need advice, they need – so we rolled out, we haven't priced our robo-investing yet, but people need to learn how to invest money.

Financial education, I mean, in America, we do a terrible job. I think it actually has got to start in high schools, but we do a terrible job, particularly for lower income folks. We have new products coming for that. So, I think they're all opportunities. I don't think – he can grow twice as fast as the economy. This is Doug and the Commercial Bank. I think this would be tougher for Daniel, but he's got countries with shares that are 2% that could be 8%. It might be in FX; it might be in swaps or might be in credit.

Gordon is already opening into 12 new markets, whatever, and a whole new product set. So, there are all these opportunities around the world. Moving money I'd put down as one; improving bill pay is one. J.P. Morgan already gives you a tremendous amount of cyber and privacy, but I look at that a little bit as why not more?

So a lot of clients – Doug talked about, we go to lot of clients we educate them in cyber. Now, we don't charge them for that. It's not something we do, but there are people who say you want to leave your money at J.P. Morgan, they've got protections like you wouldn't believe in cyber, and we call them and tell them we see problems in your computers for how you move your money and take privacy. I look at that a little bit as that's a real opportunity.

People actually trust banks and they need more privacy. If you look at how a lot of these things are designed around the world, they enter the world sometimes through a bank where they're in a private system and it's already been – they already know who the person is, you've already been authenticated, and then you could travel around the internet. So there are tons of things that we think openly, we might create new products and services that you haven't even dreamed of today.

Marty Mosby

Analyst, Vining Sparks IBG LP

Q

The second question was when we first went through the rising interest rates on the short-end, deposit betas performed a lot better and that was an unknown and it became better and so we got NII growth that wasn't expected. Right now with the pause, the longer term interest rates with our loans and our securities still can re-price because we've never been in an environment where rates were this low for that long until they started going up. So there's still a lot of innate re-pricing with funding that just doesn't re-price: DDAs, equity, now accounts, things around the balance sheet with those longer term. So, given that momentum in there, a little bit more balance sheet or NII momentum, those kind of just embedded if everything kind of just stays where it is right now.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, I would've told you – I told Marianne we were a little more on the conservative side, but our folks very correctly have also pointed out with online banking, easy to move your money to funds with money funds yielding 1.5% to 2%, and so the goal for us isn't just the deposits, it's keeping the account, keeping the money, as Mary said, et cetera. So, we don't exactly know and I think we still may be a little conservative there. So, we are still building in that even if rates don't change, some of the deposit pricing benefit will disappear as people compete more for deposits and we do see that.

So, if you actually sat down with Gordon, went through the pricing of CDs and whatnot, there are some people doing it. The online banks are doing it, the whole bunch of online banks are doing it, and so they – this happened every time I've been around it that banks do it. And remember, the last thing is, we can change some of this overnight.

Mary has given you a viewpoint of where it is today and how we're running the company, but we can change how we can run the company. And so we can move those numbers around a little bit. And at the end of day we run the company to serve our clients. And this is kind of more of an outcome to manage the risk than it is trying to guess about interest rates.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Got Betsy here and then Ken.

Betsy L. Graseck

Analyst, Morgan Stanley & Co. LLC

Q

Thanks, Jamie. Question on China. You've talked in the past about the opportunity that China presents to you and may just recently – how do we conform talking about new deregulation on the financial services side in addition to other things. Could you just give us your kind of mid-term and long-term sense on what parts of JPMorgan Chase do you expect are going to be able to leverage opportunities in China? And maybe if you can give us some color as to whether or not it's likely to be material or just a nice to have?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, China, the biggest issue in China right now is trade. I'm going to talk about two things: trade and then China itself. So, trade, the president, the administration has correctly pointed out all these issues around trade, IP, non-tariff barriers, state-owned enterprises, subsidies, a lack of reciprocal investment rights, they have 100 industries which are protected. You cannot buy control of industries and a lot of the complaint about IP forced transfer is that.

You have a 49% owned division and you've got to put your IP in and of course that is used by people. You're giving away for free effectively. And those are serious issues. And I think we've kind of expected the outcome now, which is they're making progress, they can delay this tariff, I think it's very important. I think if they put that tariff in place it would be a real problem, okay? And then, hopefully, get to a real agreement, I don't know if it can take 60 days, 90 days, et cetera, and resolve the current trade issue.

I think the trade issue – by the way, the United States is supported by Japan and Europe. I think the Chinese know it's very serious. I think they're very smart. I think they understand it. I think they want – I think both parties want to overcome it and move on. China has other issues which are quite serious, okay? And so, you shouldn't overlook them. They have 400 million, 500 million people living in poverty. They've got huge corruption. Their state-owned enterprises are hugely inefficient. A lot of American companies complain about state-owned enterprise, always a minefield. Very few state-owned enterprises are successful, but there have been subsidies. So we're having subsidies and dumping and IP transfer, you can imagine it being quite upsetting for people.

And the Chinese know all this. They know that they need reform. They talk about it all the time. Reform is pretty basic. If you look at the United States of America, we have the widest, deepest, most transparent financial market the world's ever seen. Banks, non-banks, shadow banks, direct lenders, venture capital, private equity, et cetera, they would give an arm and a leg – and transparency, rule of law, collateral, certain right – they'd give an arm and leg for that, because that plus state-owned enterprises and corruption all relate. They're all related.

When you tariff that, if you go back to United States many years ago, we had multiple of those problems two at the same time. And they have a Communist Party which has 100 million people in it. So, my own view is that they will become a fully developed nation in 15 to 20 years; their GDP will be bigger than ours in 15 years or some number like that. Our stock markets were \$25 trillion and our bond market, I forget, is \$100 trillion. Their stock market's worth \$4 trillion or \$5 trillion and will probably be \$20 trillion – would be the same size as ours and their bond market probably be the same size as ours, including their corporate bond market is like a third or fourth of ours today.

And then they will house 40% of the Fortune 3000. They will create – I forgot how many billionaires. We have list of that too. So it's a huge market and a huge opportunity. I think the biggest difference is – there's no way that – that's going to be a straight line. So, if you are making big long-term investments in China, you have to be prepared for not being in a straight line. The most prosperous economy the world's ever seen is United States of America and by no means was that a straight line. And so, you have put that in perspective.

So if you had a dream and I think we'll eventually get the right to own 100% of a company. Right now, we can own 49% of a company with very limited rights. A 100% would be a company in Shanghai that we have 100% that we can buy and sell stocks and bonds. We can do research, we can do M&A, we can do capital advisory, it's all technology. We can do TS, loans, it's all hooked to our systems around the world. In 20 years, it would be as big as we have here. The nation will be as big as we here.

So, today, we cover 120 or companies, something in China. I forgot the number. We probably cover 3,000 companies here who do investment banking type stuff. It might be 3,000. This would be competitive. The Chinese banks are bigger than we are, and if you're going to build something like that, you better be prepared for those ups and downs.

I don't expect the ups and downs in the next couple of years because they have the wherewithal to force growth. They can macro manage growth, okay? But, at one point, they won't be able to do that. They won't be able to control markets. They might have a democratic uprising. I'm not talking about a revolution, but a democratic uprising where people demand more vote.

However, if they do that, it won't be the American way, it would be the Chinese way, so my view is build for the long run and be very careful to manage those risks as you go through them. Be prepared for them; so go in with the eyes open. We do extensive amount of China testing, multiple tests to make sure that whatever – think of whatever the worst outcome is J.P. Morgan can handle that. Not you predict a bad outcome, not severely – not adverse or severely adverse, the worst, and we can handle that.

Betsy L. Graseck
Analyst, Morgan Stanley & Co. LLC

Q

[indiscernible] (4:39:18).

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Well, yeah. Right now, they – the convertible currency is when you can buy it, you get the currency, you can do what you want with it like buy and sell stuff, securities and moving it in and out of the country, you can't do that. So, they've kind of gone from here to here. And they have a long way to go to be convertible, including not only the right to do that, but to own your collateral, rule of law, governments can't just go take your money, et cetera, and I think they want to. I think they just have – it's a long step to be fully convertible.

Before you have what I talked about that, kind of economy, where you – right now, you have a U.S. dollar, you can buy and sell whatever you want in this country for the most part. And convert it out for the most part. If you have an RMB, you fundamentally have to ask their permission to do something and that's a whole different thing. So, yeah, I think in 30 years. Remember, for a country like that to give up control to markets, which is what it's doing, is going to be hard to do. That's why I'm saying it's going to have some bumps in the road, but that's not in three years.

Jason R. Scott
Head of Investor Relations, JPMorgan Chase & Co.

A

Ken?

Ken Usdin
Analyst, Jefferies LLC

Q

Thanks. Ken Usdin from Jefferies. Hey, Jamie, now that we've gone a little bit further away from that fourth quarter disruption in the markets, can you give us a little more thoughts on just how the markets have just opened back up? Especially, you talked earlier about how people trust banks and we saw a little bit of the back to banks, you can help clients one way or the other whether it's banking, lending or capital markets. But just the non-bank competitive set versus the bank landscape and where you guys sit, just how does the market feel and, again, how intense do you think that non-bank lending pressure will continue to be just as you look longer-term?

Jamie Dimon
Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, the fourth quarter was interesting because a part was completely rational. That basically we had Japan slowdown, Germany slowdown, the United States slowdown. Some people thought we were on the way to recession, we didn't, but you had the shutdown, you had a lot of anxiety over the trade talks, then you had the talk about QT and the balance sheet scared people, markets closed.

I've seen that happen many times, clearly, IPO markets and high yield markets, I always call that the tip of the spear. And people panicked. And of course, in December, my guess is half the traders weren't even there. All those automatic machines were turned off and so it was kind of easier to have some of that inflection of that issue.

The other half was just hysteria. Literally, it just shows the amount of sentiment that goes into pricing of securities of just about anything, by the way. And so once January happened, the first week or something like that, I think it was Bank of America did one little bond deal, high yield. That was it. Things opened up. IPOs well, it took a while because the SEC was out of work. So I think it just show you the overreaction of market sometimes, which basically is an opportunity for those who can keep their heads. But the question is about competition with lenders?

Ken Usdin
Analyst, Jefferies LLC

Q

[indiscernible] (4:42:11-4:42:18).

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

I don't think you got back to base from that disruption. I think part of – let me just give you some numbers about leverage lending and stuff like that, because now there's this recent hysteria about leverage lending. So, remember, the markets – the mortgage markets in 2008 were like \$11 trillion and something like \$1 trillion went bad. A lot of that \$1 trillion was levered. It was in things where people had to sell. And so with that deleveraging process, it usually causes a real panic in markets just like – because when you have the market crash in 1987 and the internet bubble bursting in 2000, people lost \$1 trillion when that internet bubble went down. You know what I said? They didn't lose \$1 trillion, they never had it. They went from here to here to here. You got to be quick to have seen it and it wasn't leveraged.

If people borrowed money to buy those stocks you would have had the same crisis in 2000 that you had in 2007 or 2009. And now the next one is leveraged lending. Total leveraged lending, I think these numbers are accurate, is not quite \$2 trillion, okay? The book that's in the banks is generally the A pieces, the healthier pieces, the senior pieces, which are about \$800 billion or \$900 billion, and that's 80% banks.

Then move over to the other side, the 80% or \$800 billion or \$900 billion which is more the BBB, the sub pieces, the senior pieces, CLOs and stuff like that, and that's like \$800 billion or \$900 billion. \$500 billion is direct lenders of names you know, okay? They're smart people, they're more long-term capital. They do it slightly differently, their average loans are \$10 million to \$50 million or \$100 million. In some ways, sometimes they compete with us, and sometimes we don't want that. And I think the CLOs are \$400 billion, \$500 billion, something like that.

Daniel E. Pinto

Co-President, Co-Chief Operating Officer of JPMorgan Chase & Co. and Chief Executive Officer of Corporate & Investment Bank, JPMorgan Chase & Co.

A

\$600 billion.

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

\$600 billion. But they're actually far better structured than in the past. They also have permanent capital, they have more equity, they have more sub debt, et cetera. I do think there's an issue, which – if I was the regulators, I would think about, I don't think it's systemic, that when things get scary will the people lending to the riskier part be there for them. And my experience is not really.

Now, I don't think they're going to panic, they have permanent capital, they don't have to sell, and the CLO manager is generally locked up for five or six or seven years, but that doesn't mean they're going to lend, they may pull back and wait to see how things sort out and very often their investors tell them to do that, not the CLOs, but the hedge funds, et cetera. And so, I think that might be an opportunity when the time comes.

I think banks, one of the things we do and I really do mean this the – you want JPMorgan, Bank of America, Wells Fargo, Citi, Goldman, everyone, you want us lending when things get bad. That's what you want. You don't want every capital buyer to pull out the second they think something is wrong because that's when you're in a crisis. And when you're the Fed, the only people lending in 2009 were some of the strong banks, J.P. Morgan and some others and the Fed. And if the banks aren't there, it will be the Fed. They will be the only one who can do it.

And I think some of these rules have created this circumstance which will be hard to lend both the equity rules when things get bad, then there could be CECL or it could be a whole bunch of other things. And then, for us, I would talk to Doug, I'd say, Doug, go get back the clients you want, and they'll realize having us through thick or thin may be more important than getting a slightly better deal or slightly less of a covenant.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Jeff Harte back over this way.

Jeffery J. Harte

Analyst, Sandler O'Neill & Partners LP

Q

Hi. Jeff Harte with Sandler O'Neill. So, deepening client relationships has been kind of a recurring theme. And I guess I'm thinking more on the consumer side of the business, but I've always thought kind of in consumer banking the Holy Grail was to get clients to want to consolidate their relationships with you as opposed to the bank pushing it through cross-selling.

Can you talk a little bit about the trends you've seen over time as far as how effective deepening efforts have been in consumer? And then, secondly, has that changed much recently? I guess I'm ultimately trying to ask there, has technology and digital actually brought us closer to that Holy Grail where clients are going to be demanding it?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So if you look it, it's just two business; wholesale. In the wholesale business, for the most part, you price stuff by the drink. You pay for this and you pay for this and you pay for a trade, you pay for this, you pay for – even in TS, you price almost every little part of it and it's very competitive, so they've got – in the consumer businesses, it's basically – it's kind of in bundled pricing before in consumer banking.

So, in consumer banking, when I started as a kid, you got a checkbook, you didn't even have a debit card. And then we came with debit card and then we came with online bill payment, then they had more branch, then they had ATMs and then they had all these things, so more and more services for that same thing all linked in together. And I think this digital is just making an extension. Jenn didn't show you, but the credit card – I find this unbelievable, you guys did a Credit Journey and basically go on and get your credit score. Is it 10 million people? 15 million people are – and we don't really market – we don't really market this thing. And have you all checked your credit scores recently? Well, if you are a Sapphire account, it's for free, and we even tell you how to improve it.

It really says you actually pay this bill or don't do this, you don't file for another credit card, something like that, you can actually improve it. And then Gordon's always right about this, I love the fact you can do new invest, buy and sell stocks, have your credit card linked in, do all these various things, track your kids, automatically fund their accounts, watch where they're spending on their debit card. I think it is great.

Now, our problem is keep it simple while you build these connections. Keep it simple. And you saw these auto pre-fills of accounts and how to improve. Also, I do think digital makes it easier to do a better job for the customer in the way they want to be served and in the way they're maybe not used to. So like take You Invest, it's – we're not really out there marketing You Invest in a big way. But we do have quite a few accounts and we're looking at how people use it. But, at one point, it might be it's just so good and the price is right that you want to add it to what you're doing for the bank. So, I do think digital is going to make that work better: digital account opening, digital authentication, knowing that you're safe.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Steve?

Steven Chubak

Analyst, Wolfe Research LLC

Q

So, Jamie, along those same lines of questioning, I'm just wondering how you think the competitive landscape is going to evolve and, in particular, how are the small regional banks going to compete given limited capacity to support that same level of digital investment that seems to be required?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

We're the biggest bank in community banks and we supported the reform for them because I do think some of the regulations, compliance costs have made it excessively burdensome. Remember, they have benefits too. So they have people outside, think of fintech, Fiserv, people who build things for them that get the economies of scale because they sell it to 50 banks, whereas we tend not to do that. And so I think they will find ways to compete and they're on the ground, they're smart; they have different cost structures sometimes different products and services. Sometimes they won't do real estate the way we do it. So they'll find a way to compete. But I do think competition is tough.

I expect this to be a battlefield from which we emerge victorious. But it is going to be tough. We have 5,000 banks in America. It's the least consolidated banking system in the world for developed nations other than Germany. And so, in America, they talk about the consolidation of the banks, the big banks here, but less market share.

And if you go around Canada, Japan, Australia, France, UK, Spain, Hong Kong, they're much more consolidated because they realize the economies of scale in banking is pretty large. And that's why my guess is you all know the business as well as I do that you'll see more of these bank mergers. Bank mergers are hard mostly for social reasons. But they are – if you can execute them properly, they do deliver shareholder value and customer value over time.

Remember, like I said, our competition is also you say a FAANG, my view is they're all coming in one way or another, and we should be prepared for that. So, in some ways, we have to do some of the stuff to protect ourselves.

Q

[indiscernible] (4:50:38: 4:50:43).

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

You saw Apple announced something recently.

Q

[indiscernible] (4:50:45).

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Yeah. So, these folks, they all want to have embedded payments. They don't have to do the payments, but they want to have embedded payments. They want the knowledge of payments, which I think it will be hard to do. Some of them are asking for, you can embed your payments, but we want to know everything that person's ever done with you, which of course I think borders on unethical. So you can embed payments.

Everyone's going to want that when you go into any ecosystem, whether it's a store or Facebook and I see what Daniel bought, I can click and it gets shipped to me and pay for them. One – just push the button. You don't have to actually do anything because you've already been authenticated and then people will white label. There are a couple of people who started to – they white label, which means they got someone else. The bank is kind of on the back, which is not necessarily legal, but the bank will white label it and basically do it like a private label card where you're just processing the business for the credit card, debit cards, credit and you may use different vendors there. I think it's hard to do because it's hard to link up. And then people try other things, just fully digital banks, fully online banks, if you travel around the world, people have done very different schemes to try to build businesses in banking/payments/investments. Again, we have huge strengths, but we have to make sure we stay on our toes.

Q

Hi, Jamie. Long-time investor and I've got to say that, whenever I hear you speak, I get really excited to have you as the CEO of this company. But, also as an American, I can't help but get excited about thinking about what it can mean to have a leader like you in the White House. I've been taught...

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

Wouldn't be as interesting as the one you have now.

Q

That might be true. But I've been taught to wait for like a fat pitch in investing, and I just feel like, for America, you are that fat pitch with your leadership and your background and your straight talk, things that are really appreciated by me and I think would resonate with a lot of Americans. And I guess I ask why not be that man in the arena right now?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

A

I love what I do and I think that would be tilting the windmills.

Jason R. Scott

Head of Investor Relations, JPMorgan Chase & Co.

A

Anybody else? Who wants to go after that?

Jamie Dimon

Chairman & Chief Executive Officer, JPMorgan Chase & Co.

So let me just end by first thanking the management team here who does a tremendous amount of work to put this on for you and try to get it clear and consistent. In the room, I know the Operating Committee here, but you also have a lot of other senior managers, so I just deeply appreciate.

They break their back to building these businesses around the world. And then to all of you, the long-term shareholders, we really appreciate it and we are working hard for you. Thank you. See you next year.

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