Operator

Good morning. My name is Dennis and I will be your conference facilitator today. I would like to welcome everyone to the Goldman Sachs Fourth Quarter 2017 Earnings Conference Call. This call is being recorded today January 17, 2018. Thank you.

Ms. Miner, you may begin your conference.

Heather Kennedy Miner

Good morning. This is Heather Kennedy Miner, Head of Investor Relations at Goldman Sachs. Welcome to our fourth quarter earnings conference call.

Today's call may include forward-looking statements. These statements represent the firm's belief regarding future events that by their nature are uncertain and outside of the firm's control. The firm's actual results and financial conditions may differ, possibly materially, from what is indicated in these forward-looking statements. For a discussion of some of the risks and factors that could affect the firm's future results, please see the description of risk factors in our current annual report on Form 10-K for the year ended December 2016.

I would also direct you to read the forward-looking disclaimers in our quarterly earnings release, particularly as it relates to the impact of tax legislation, our investment banking transaction backlog, capital ratios, risk-weighted assets, total assets, global core liquid assets, and supplementary leverage ratio, and you should also read the information on the calculation of non-GAAP financial measures that's posted on the Investor Relations portion of our website at www.gs.com.

I'll now pass the call over to our Chief Financial Officer, Marty Chavez. Marty?

Marty Chavez

Thanks, Heather, and thanks to everyone for dialing in this morning. Before diving into our results, let's first discuss the effect of U.S. tax reform and the potential future implications. We can then walk through our fourth quarter and 2017 performance. And finally, I'm happy to answer any questions.

When you take a step back and think of the implications related to the new tax law, you can categorize them in two main buckets, direct and indirect. Let's discuss the direct impacts first.

We took a $4.4 billion onetime charge in the fourth quarter. This includes approximately $3.3 billion associated with the onetime deemed repatriation tax on foreign earnings and approximately $1.1 billion related to the remeasurement of our deferred tax assets. The current estimate of the DTA impact reflects further refinement of our numbers since our December announcement. Based on our current understanding of the rules, another direct consequence will be a reduction in our effective tax rate to approximately 24%.

On the indirect side of the equation, there is clearly the potential for increased business activity. Potential benefits could take many forms including heightened M&A activity, increased financing volumes, or the most important indirect benefit to our business, economic growth.

Despite the fourth quarter charge, the direct benefits from forward EPS and ROE accretion, coupled with the potential for several indirect tailwinds are material, long-term positive for shareholders.

With that out of the way, let's review our results.

Fourth quarter net revenues were $7.8 billion, net earnings including the one-time tax charge were a loss of $1.9 billion and EPS was a negative $5.51. Excluding the one-time tax charge, fourth quarter net earnings were $2.5 billion and EPS was $5.68.

With respect to our 2017 full year reported results, we had firm-wide net revenues of $32.1 billion, up 5% versus 2016. Including the one-time tax charge, net earnings were $4.3 billion and EPS was $9.01. Excluding the charge, we had net earnings of $8.7 billion, up 17% year-over-year; earnings per share of $19.76, up 21%. Our return on average common equity was 10.8%, and we grew book value per share by 5% year-over-year.

We were able to post these strong results despite the industry-wide headwinds, facing one of our businesses, FICC, and despite continued investments in future revenue opportunities that has not yet contributed meaningfully to earnings. Once again, solid performance against that backdrop.

The environment in 2017 turned out to be mixed. Continued strength in global equity and credit markets coincided with lower levels of market volatility and client trading activity. And with these headwinds, we concentrated on serving our clients, rolling out our growth initiatives, and investing to drive our business forward.

Three of our four business segments including Investment Banking, Investment Management, and Investing & Lending produced solid net revenue growth and led to an overall increase in the firm's revenues. Conversely, in Institutional Client Services and FICC in particular, revenues declined as the business continued to operate in a low volatility, low activity environment. Our solid overall performance in 2017 demonstrates the value of our diversified business model and the strength of our client franchise. And as I will talk about later, we are making significant engineering investments to further expand our client franchise, grow revenues, and transform the long-term earnings profile of the firm.

With that as background, let's discuss the individual businesses in detail.

In the fourth quarter, Investment Banking produced net revenues of $2.1 billion, 19% higher than the third quarter, as a significant pickup in underwriting more than offset a decline in M&A. Advisory revenues were $772 million. The 15% decline relative to the third quarter reflects a decrease in the number of completed M&A transactions. Nonetheless, we advised on over 75 transactions that closed during the fourth quarter, representing approximately $120 billion of deal volume. We also participated in announced transactions totaling $450 billion, a pace that more than doubled third quarter volumes.

Moving to underwriting, net revenues were $1.4 billion in the fourth quarter, up 55% sequentially as equity issuance improved and we participated in numerous large transactions around the world. Equity underwriting net revenues of $460 million more than doubled compared to the third quarter, driven by an increase in follow-on offerings including our role as sole arranger into Toshiba's ¥600 billion private placement. Debt underwriting net revenues increased 35% to $909 million and included significant contributions from leveraged finance activity. It's worth spending a moment on our debt underwriting franchise which we have built into a nearly $3 billion business. This is more than double our average revenue run rate from 2009 to 2011. This growth happened despite our smaller lending footprint because we identified it as a strategic priority where we saw an opportunity to grow share, invested continuously over a number of years and executed relentlessly for the benefit of our clients and shareholders.

For the full year, Investment Banking net revenues were $7.4 billion, up 18% from 2016 on increases in both financial advisory and underwriting. Results included a 40% increase in equity underwriting and record debt underwriting revenues which rose 20%.

Our Investment Banking franchise remains very well-positioned and continues to grow. For the full year 2017, Investment Banking generated its second highest annual revenues since our IPO. This strong performance reflects our continued focus on building long-term client relationships and our ongoing investment in talent and capabilities. We ended 2017 ranked first in both global announced and completed M&A and held the number one position in global equity underwriting. Additionally, we have a leading position in leveraged finance where we have picked up market share over the last several years by successfully integrating our strategic advisory capabilities with our capital markets and market-making franchises.

Looking forward, our Investment Banking backlog increased versus the third quarter, driven by announced M&A volumes. It was also higher compared to a relatively solid level at the end of 2016. The new tax legislation in the U.S. has brought significant clarity for corporations, and as a result, our level of dialogue with clients has increased across a range of strategic and financial issues.

Turning to Institutional Client Services. Net revenues were $2.4 billion in the fourth quarter, down 24% compared to the third quarter amid lower volumes in a variety of markets and continued low volatility. For the full year, ICS generated $11.9 billion of net revenues, down 18% compared to 2016, also driven by lower volatility in client activity and a particularly challenging backdrop for our commodities franchise. FICC client execution net revenues were $1 billion in the fourth quarter, down significantly versus the third quarter, reflecting a continued challenging operating environment. We saw lower sequential performance across four of our five fixed income businesses. Commodities improved versus the difficult third quarter, reflecting our risk mitigation efforts. Currencies and rates both declined amid a backdrop of volatility and currencies included a weaker emerging markets performance.

Credit and mortgages also saw weaker results in this environment. For the full year, FICC client execution net revenues were $5.3 billion, translating into a 30% year-over-year decline. Most of our businesses were impacted by low volatility across global markets, which affected client activity. For example, during the year, we saw historically low volatility levels in U.S. and European interest rates, and volatility in G10 currencies hovered near post-crisis lows. We also saw tighter bid ask spreads across various products. Low levels of volatility also had a disproportionate effect on us given our active investor oriented client base. During the course of the year, we saw lower levels of derivative activity and fewer large transactions which historically have been areas of strength.

Looking specifically at our FICC performance of the year. Commodities was the largest single driver of our year-over-year decline, representing more than one-third of the delta amid inventory challenges and muted client activity. Across the rest of our macro franchise, currencies and rates were also significantly lower compared to a year ago. A variety of factors including reduced volatility and lower client activity which particularly affected G10 currencies contributed to the decline.

Credit also decreased significantly amid relatively low client activity and declines in our U.S. high yield and distressed businesses. Mortgages, although a smaller business, increased significantly versus last year, reflecting improved performance in commercial and residential mortgages. Needless to say, we are highly engaged in improving our performance in FICC through our strategic initiatives. We are broadening our client and product footprint, and deepening our relationships to drive higher rankings and market share with key client groups. Client feedback has been positive. And we believe as we continue to improve our connectivity with clients, we can drive meaningfully better performance going forward.

In equities, net revenues for the fourth quarter were $1.4 billion, down 18% sequentially. Relative to the third quarter, equities client execution net revenues were down significantly on lower results in both cash and derivatives. ECE performance was partially offset by higher commissions and fees and the slight increase in security services. As it relates to fourth quarter equities client execution results, clearly not a strong quarter. However, quarterly performance will fluctuate as this business requires capital commitment to support our client franchise. Over time, these activities have been a consistent contributor to our equities franchise, comprising 30% to 40% of total equities revenues over the past five years.

For the full year, equities produced net revenues of $6.6 billion, down 4% year-over-year. Despite very favorable trends for equity prices during the year, U.S. cash volumes fell by double digits, while equity market volatility fell to new lows. For the year, equities client execution net revenues were $2 billion, down 7%, driven by lower derivatives performance. Roughly two thirds of the annual decline relates to our on-exchange, single stock options business in the U.S., which we exited in the fourth quarter. Commissions and fees were $2.9 billion for the year, down only 5%, which outperformed the decline in U.S. cash volumes. Lastly, securities services generated relatively stable net revenues of $1.6 billion as higher client balances were offset by a mix shift in short covering to more liquid securities.

Turning to risk, average daily VaR in the fourth quarter was $54 million, up from $47 million in the third quarter, driven primarily by increased exposures associated with our equities franchise.

Moving on to our Investing & Lending segment. Collectively, these activities produced net revenues of $1.7 billion in the fourth quarter. Equity securities generated net revenues of $1.2 billion, reflecting corporate performance as well as sales and gains in public equity investments. Approximately two-thirds of our performance was from mark-to-market on public securities and events such as sales in our private portfolio.

Net revenues from debt securities and loans were $449 million, which was largely driven by net interest income of roughly $500 million. Results included an impairment of approximately $130 million on a secured loan related to Steinhoff. Our Investing & Lending balance sheet ended the quarter at $120 billion, up 4% or $4 billion versus last quarter, driven by continued growth and real estate, private wealth and consumer loans. Life to date, as of year-end, we originated approximately $2.3 billion of Marcus unsecured consumer loans and grew our online deposits by over $5 billion last year.

In the fourth quarter, we also consolidated our online lending and deposit platforms under the Marcus brand. Feedback on lending and deposit products has been positive as we have been able to deliver real value to customers by offering simple and transparent products with the great user experience. We plan to build on this momentum in 2018, while remaining disciplined in our underwriting standard, focused on lending to creditworthy customers.

For the full year, Investing & Lending generated net revenues of $6.6 billion, driven by $4.6 billion in gains from equity securities and $2 billion of net revenues from debt securities and loans. Within equity securities, $3.8 billion was related to private investments and approximately $800 million was related to public investments. Our net interest income within debt securities was approximately $1.8 billion for the year.

Let me take a moment on the long-term contribution of our I&L segment. Equity investing is a capability that uniquely positions us in financial services and differentiates the firm in the eyes of our clients. It also has significantly contributed to book value per share growth and return through the cycle. With respect to debt I&L, the recent expansion of our lending activities positions the firm with $2 billion of run rate net interest income as we start 2018. In addition to driving revenue growth, increased lending has not only deepened our relationships with existing clients, it has also enabled us to establish new ones. We are confident that these efforts will continue to drive the growth of our client franchise and earnings.

In Investment Management, we produced fourth quarter net revenues of $1.7 billion, our second best quarterly performance. This was up 9% from the third quarter, primarily on solid growth in management and other fees, which were record despite broader industry headwinds. For 2017, Investment Management net revenues were a record $6.2 billion, up 7% year-over-year, largely driven by growth in management and other fees on higher assets. Assets under supervision finished the year at a record $1.5 trillion, up $115 billion versus year end 2016 driven by $42 billion of long-term net inflows driven by fixed income and alternative products, $13 billion of liquidity product outflows and $86 billion of market appreciation. During the fourth quarter, AUS increased $38 billion, primarily driven by $17 billion of net inflows into liquidity products and $22 billion of market appreciation.

Now, let me turn to expenses. Compensation and benefits expense which includes salaries, bonuses, amortization of prior equity awards and other items such benefits was up 2% for 2017, which was 300 basis points lower than the increase in net revenues. This translated into a compensation-to-net revenues ratio of 37%, down 110 basis points versus 2016.

Fourth quarter non-compensation expenses were $2.6 billion. The increase versus the third quarter was driven primarily by a $127 million donation to Goldman Sachs Gives, our donor-advised charitable fund, higher expenses related to consolidated investments and higher consulting fees. For the full year, non-compensation expenses rose 5%, largely driven by our investments to fund growth, partly offset by lower litigation expense.

There were three main drivers of the increase which were fairly balanced contributors. The first driver relates to our investment in Marcus; second, were expenses associated with investments that need to be consolidated in our balance sheet for accounting purposes; and third, were higher technology and consulting costs to support both regulatory implementation efforts and our ongoing focus on improving efficiency and scale throughout our businesses.

Underpinning our growth initiatives, we continue to make significant investments in engineering, which are critical to driving the expansion of our franchise. The two goals of our engineering strategy are two, enhance the client experience and drive revenue opportunities; and improve operating efficiency and scale.

On the client side, we are exploring and embracing innovative solutions to evolve and transform our business model using machine learning, data analytics, APIs, cloud services and open-source to deliver new services. These investments will allow us to leverage our intellectual capital in more impactful ways, to evolve and be a disruptor in new and existing markets and will affect all of our businesses.

From an efficiency perspective, we are automating processes and analyzing workflows, particularly in our market-making businesses. There are significant opportunities to operate more efficiently across the firm.

Moving on to taxes, our underlying tax rate for 2017 was 28.4% excluding the impact from tax legislation and employee equity compensation accounting. Our reported effective tax rate for the year was 61.5% including the $4.4 billion tax charge, which was partially offset by a $719 million benefit related to employee equity compensation. Our fourth quarter tax rate reflected $223 million of this benefit, primarily from the delivery of certain prior year equity awards in December. For the first quarter of 2018, assuming current stock price levels, we estimate the equity compensation related accounting benefit will be approximately $175 million.

Turning to balance sheet, liquidity and capital. Our global core liquid assets averaged $221 billion during the fourth quarter. Our balance sheet was $917 billion, down slightly versus last quarter. On a fully phased in basis, our common equity Tier 1 ratio was 11.9% using the standardized approach and 10.7% under the Basel III Advanced approach, down a 110 basis points and 100 basis points respectively versus the third quarter. Approximately 70 basis points of the decline was related to the onetime tax charge with the remainder of the change related primarily to continued growth in lending. Our supplementary leverage ratio finished at 5.8%.

In the fourth quarter, we repurchased 6.6 million shares of common stock for $1.6 billion. For the full year, we repurchased $6.7 billion at an average purchase price of roughly $232 per share. As a result, we reduced our basic share count by approximately 26 million shares for the year, reaching a new record low. In addition, we paid out approximately $1.2 billion of common dividends over the course of the year. In total, we returned nearly $8 billion of capital to shareholders in 2017. As we look forward to 2018, given the positive backdrop for investing further in our franchise and the impact of tax legislation on our capital ratios, we do not expect to use all of our 2017 CCAR cycle authorization.

Over the past three years, our share buybacks have been approximately $5 billion to $6 billion per annual CCAR cycle. We believe this is a fair expectation over the medium term subject to a variety of factors. However, given the capital impact from tax legislation, we do not expect to buyback at that pace in the first half of 2018.

Before taking questions, a few closing thoughts. We enter 2018 well-positioned for growth. We are working intensely to achieve our $5 billion in strategic growth initiatives with an emphasis on growing earnings and returns. We remain committed to growing our global client franchise and have received positive feedback on our early progress. To do that, we continue to invest in our franchise, to broaden and improve our client capabilities through technology, talent and by our willingness to explore new disruptive opportunities.

Finally, there are also a number of positive tailwinds that could drive greater client engagements and a more expansive opportunity set. We start 2018 with renewed optimism for accelerating growth in the U.S. and abroad. Higher interest rates and more active central banks often correlate with higher client activity. And as I mentioned previously, the recent change in U.S. tax law is driving increased client dialogue in investment banking and across the broader client franchise which could stimulate increased confidence and activity.

With that, thanks again for dialing in and we'll now open up the line for questions.

Question-and-Answer Session

Operator

[Operator Instructions] And your first question is from the line of Glenn Schorr with Evercore ISI. Please go ahead.

Glenn Schorr

Good morning. So, in the past, better DCM revenues eventually led to better secondary revenue, and I heard all the comments on this really low vol in just about every asset class. But, I'm curious if there is any component that it's a lot of leveraged finance or there is a lot of money going into bond funds just buying every new issue and putting it away. It feels like the whole dynamic has changed as we sit here and wait for vol to pick up. But it seems like revenues have fallen more than even the drop in vol.

Marty Chavez

So, Glenn, are you asking more about our debt underwriting business or about our FICC client execution business?

Glenn Schorr

I appreciate that, fair enough. It's a little bit of a combination of both. I am asking about the geography and the main contributor to the pick-up in DCM and why there is not a follow through in FICC as there was in the past?

Marty Chavez

Well, clearly Glenn, we agree with you that better DCM revenues can result in better secondary revenues in FICC client execution over time. But to talk a bit more about our debt underwriting business, as we said, record in many ways, not only league tables, also revenues full year on the quarter. So there are many things going on in there. There is trends in rates, spreads and vol, those are all -- plus M&A of course, all driving demand for issuance. And as you know, overall financing costs, even with the rate increases are still low historically. Really, the key to our debt underwriting business over time and in this quarter has been the alignment with acquisition finance and our M&A franchise broadly including our relationship with financial sponsors. And that's really something, as I mentioned that we identified as a priority a few years ago as our core strength versus lending, which might have been part of the strategy for others. And so by aligning with the M&A franchise and focusing on it quarter-after-quarter, we got to this point. And that's really what differentiates our debt underwriting business compared to others. But to get back to the other part of your question, the pull through for trading requires a bunch of things, increased volatility, client activity, market events, central bank actions, all of those things could be drivers for greater activity in secondary.

Glenn Schorr

Maybe just a one follow-up. In equity and I&L, I could be wrong. So, please correct me if I'm wrong. But, I don't feel like you've made lots of new investments for years on the equity side, but still seems like you have you own a ton of private equity. And in the world we live in, it seems like there has been lots of opportunity exit. Is this just the market going up or is there more of like annuity stream there? I like the $2 billion on the debt side that you told us about, but could you give a little more detail about the private side on the equity?

Marty Chavez

Yes. Well, the equity I&L represents a diversified global portfolio. It's diversified across sectors and geographies; it's diversified across corporate, private equity and real estate. And we called out the driver which is gains in corporate performance and events. There is a public component of that portfolio, and we'll be saying more in the upcoming 10-K on the breakdown there. Really, I think it's important to observe that the 2017 revenues are driven by several hundred investments, not any one particular investment. And really what's distinctive about this franchise is that the sourcing capabilities are driven by a global network. And it's really that which creates a portfolio that has its own behavior and generally rising markets are helpful but it's not indexed in any way.

Operator

Your next question is from the line of Michael Carrier with Bank of America. Please go ahead.

Michael Carrier

Maybe just first question. Historically, Goldman has been able to achieve a premium ROE versus peers. You guys always noted that in the past. That said, peer ROEs are set to rise on whether it's business mix, more exposure to rates and tax benefits. You guys had a $5 billion growth initiative. But other areas of the business like trading continue to see headwinds. And this year alone FICC raised about half of that $5 billion benefit. So, I guess, just how confident are you over a multiyear period? Are you going to sustain that premium and improving ROE? And if trading remains weak, do you need to do more strategically, whether it's on business mix or capital on cost allocation into the business?

Marty Chavez

Well, first, of course, we have this track record of generating ROEs at or near the top of the peer group over the last several years. And the key there is not any one business; it's the diversity across our segment. And three of the four segments are up, as you know. And several of them had, really there is no other way to describe it other than the stellar performance. And so, we're always looking at our business mix; we're always looking at growth initiatives. We've had them for years. For instance, debt underwriting is one that we identified, as I mentioned and we executed on. Really what's different in the growth initiatives that we shared with the market was we externalized that. So, that you will hold us accountable and we will hold ourselves accountable and it's galvanizing focus and attention over time.

Now, when we look at FICC, we're always looking at optimizing every aspect of the business; capital allocation, expenses, the efficiency of the business. Generally, when we outline the growth initiatives, we said they do not depend on any change in the market environment. Where the market backdrop which as you know is challenging across the industry to deteriorate, of course, we would revisit all of those aspects of the business.

Michael Carrier

Okay, it's helpful. And just as a follow-up, you mentioned on the lower tax rate, potentially you see more activity. Just how are you guys thinking about your lower tax rate in terms of either reinvesting in the business, so basically like the expense outlook, as you look into 2018 or 2019 or how much will it drop to the bottom-line? And then, I guess, just from a competitive standpoint, do you expect a lot of the tax benefit to be passed on to clients just given competitive pressures?

Marty Chavez

Well, so, I'll start by walking through our estimated, the go forward tax rate first off, which is a long-term effective tax rate 24%; that's just starting with the 21% new U.S. corporate tax rate, adding 2 points for state and local, adding 1 point for international impacts and all other effects [indiscernible] and so on. And we see in there, benefits, both ROE as well as EPS accretion in the high-single-digit percentage range. Now, as the next few years play forward, we don't know exactly how the competitive dynamics are going to evolve. But of course, we're looking to share those benefits across our shareholders, our clients and our people. And it's going to dependent, it's going to vary by business, but especially on competitive dynamics. But again, for us, I'll just say, the main effect that we see that the direct effect is driving earnings growth and ROE over time.

Operator

Your next question is from the line of Matt O'Connor with Deutsche Bank. Please go ahead.

Matt O'Connor

I want to follow up on the buyback comment. So, I guess first, do you care to kind of better box or more tightly box the buyback expectations for the first half of the year versus just less than the 5 billion to 6 billion annual medium-term target?

Marty Chavez

I am sorry, Matt. I couldn't hear the middle part of your question. Could you repeat that please?

Matt O'Connor

Sorry. Just on the share buybacks, I think you have said the medium-term outlook is for 5 billion to 6 billion annually, but as the pace in the first half would be less than that. And I was just wonder, if you want to give any more clarity on the amount that you're looking for on buybacks for the first half of this year and do you want to tighten up that range?

Marty Chavez

So, as you know, Matt, there are so many factors that drive the buyback. There is our earnings profile and then of course over time there is the next

CCAR cycle and the evolution of the test, which has many puts and takes in it, but especially depending on severity of the macro shock. And so, given all of that, we're not going to further break out the term structure of the buybacks, other than to say that $5 billion to $6 billion is the range over the medium term, which is very similar to our buyback in the past few years. There was 4.2 billion and 6 billion and 6.7 billion last year. So, 5 billion to 6 billion is the expectation.

Matt O'Connor

Okay. And then, just in terms of committing more capital to growing the business, when you outlined the 5 billion initiatives back in September, I think you talked about some additional capital being committed to that. Is there any acceleration in that process? I did notice that the loan limits on Marcus I think were meaningfully increased, if I read correctly, the 40,000. Is there any kind of acceleration or front-ending of some of that capital commitment, as you think about growing out the -- those 5 billion of revenue initiatives?

Marty Chavez

So, the capital that we underlined in the growth plan remains part of our long-term plan. And as for acceleration, no, we're operating according to the plan and it's evolving, though of course we're in the early stages. I would just say as it relates all of those growth initiatives, we've got extensive dashboards. I love dashboards and those are going be metrics of all kinds, including the capital because of course we're changing from a -- where we've been in the past few years. Now, we see these opportunities for growth, high marginal ROEs and of course we prefer all day to invest in these opportunities that are in our business compared to buying back our stock above book value. But, no particular acceleration in the capital plan but it's all baked into the plan.

Operator

Next question is from the line of Jeff Harte with Sandler O'Neill. Please go ahead.

Jeff Harte

Good morning, Marty. A couple for me. One, it's not hard to envision a more favorable operating environment in 2018 versus 2017. Can you give us any kind of updates on how quarter-to-date trends are progressing? I know, it's kind of early but I mean do you get the feeling seasonality is showing up?

Marty Chavez

Well, Jeff, it is most definitely very early and 10 days into the quarter. And so, I would not extrapolate anything. But, I would say, market conditions can change and turn rapidly, and they have. And it's been a strong start to the year. Definitely, if you ask me this time last year, this time this year, I take this time this year all day. But again, no one, not you, not us especially would extrapolate anything from what we've seen in just 10 days.

Jeff Harte

Okay. And secondly, on the commodities business, can you give us a little historical perspective, I suppose on Goldman's commodities business? I mean, it's been a tough year. But, I guess, I am trying to get a feel for kind of the frequency of tough years historically versus other FICC businesses. And also, what we should be watching from the outside to maybe get indication things are getting better? It doesn't necessarily seem like exchange volumes and oil volatility are as useful as it used be.

Marty Chavez

Well, Jeff, on historical perspective, I am definitely feeling my age since I grew up in that business. So, I could go on at too greater length on the historical perspective in the business. But, what I will say about it is some things are exactly the same, many things in the commodity business as they were when I was growing up in the early 90s, which is exchange volumes are an important part of the business, they are not all of the business. Some have said erroneously in our view in the past that there was an opposition between over the counter and exchange. Actually, we've always seen exchange volumes and liquidity on exchange as potentiating the ability to provide liquidity and hedging solutions to clients over the counter. And so, those two businesses can be in a virtuous cycle and often are.

The other thing about the commodity business that being in it teaches you is that maybe some other businesses will have very long term trends including trends that continue for decades, and that is rarely the case in the commodities business. I remember when I was in that business and people would ask me, well, you are the quant in the business, and so, what do you think about the outlook for oil prices. I would say accurately but perhaps not all that helpfully, 50% chance they go up and 50% chance they would go down. And so, the business is not predicated on any -- on directions and the view, it's really -- it begins and ends with the clients. The clients want to buy, we sell; they want to sell, we buy. It's intermediating all along the value chain from producers to refiners to consumers in all kinds of different product formats, which could be physical, futures, systematic trading strategies, derivatives. And so, what I will say, just to end is that the commodities environment was tough across the board. And for us, as you know, we have a bigger footprint in our commodities business as a part of our FICC franchise compared to others.

And then, we'll also note as I mentioned last quarter to you, we made significant progress in reducing risk in the business, risk that we acquired on the back of facilitating what the clients wanted to do. And those inventory headwinds which were a challenge throughout the year for second and third quarter, subsided meaningfully in the fourth quarter.

Operator

Your next question is from the line of Mike Mayo with Wells Fargo Securities. Please go ahead.

Mike Mayo

Hi. Well, I'm torn between the Investment Banking results versus the trading results. And I think I've heard you say that you'd like to do more trading with corporate clients where you're -- it's kind of a mix issue when it comes to the trading results, Goldman versus peers. So, what I'm trying to figure out is if you're so strong in investment banking and advisory in particular that implies that Goldman has some of the best relationships with corporate CEOs on the planet. In other words you have great relationship with the CEOs, the boards of directors, the people on top of the house. So, why can't you do more business trading with those, so much further down from the top of the house?

Marty Chavez

Well, it is the key question. And as you know, in our growth plans that we've been talking about, there is a component of the $5 billion annual revenue opportunity developing over the next three years, a $250 million component, which is expanding our corporate franchise in both foreign exchange and commodities. This is something that actually isn't brand new for us; it's something that growing up in the business, I was at the intersection of those two businesses and worked in both, at various points in my career with the firm. And what you will notice and I'm sure you're aware, is that the different parts of our corporate clients are accountable for different parts of the business. And so, depending on the client, this actually changes greatly depending on the kind of corporate client. Just speaking about the commodity sector, it depends a lot whether you're talking with exploration and production, companies or diversified companies, or mid-stream; who is owning the hedging strategy for the company can vary greatly and it can go all the way from CFO to treasurer to assistant treasurer or sometimes it's on the procurement side.

And so, translating these top-flight relationships that we have with CEOs across the -- deep inside the corporations to all the parts of them that are executing various kinds of business, not just the capital markets products and the M&A product but all of the products of the firm is work and effort and we see it as a huge opportunity to leverage our banking franchise to drive this kind of corporate business. And having embedded the market-making talent in the banking business more deeply than we ever have in the past, we're already seeing the benefits; we're already seeing mandates start to arise from that deeper integration. But still and all, having seen all of these significant declines in FICC, we still -- because of diversification, because of for instance our M&A franchise, we still have one of the highest ROEs in the industry.

Mike Mayo

Right, but specifically on trading, it just seems like progress would have been a lot faster than it's been. In other words, it's not new news that you're underpenetrated to the corporate. What are you guys saying to employees internally, what are you saying in terms of intensity? Do you think you succeeded? Would you say so far your score card -- and I know it's only September since you came out with strategic growth initiatives but this isn't really new news; it predates the September presentation. How do you think you're doing in terms of penetrating deeper within your corporate clients, through the CFO, treasurer, procurement and the other people you mentioned?

Marty Chavez

Well, to step back, we're making progress on all of the growth initiatives that we outlined, deploying balance sheet, growing deposits, AUS, hiring employees into FICC, improving market share in FICC and equities, and specifically increasing the mandates from this joint venture between investment banking and trading. And we are seeing according to all these metrics that we're making progress on the initiatives on all of the initiatives. Now, it's early days and of course, we'll be having many conversations with you and everyone in the market and certainly internally. We just came out with some internal discussions with our global managing directors where everybody knows that we're holding them accountable and you all are holding us accountable, and that breaks down a lot of detail, accountability matrices everywhere. And also, one thing that we know from having seen the cycles many times is that when we start making this progress in market share, it actually needs a better activity environment for the penetration to flow through to revenues.

Mike Mayo

And then, last follow-up. What's the time from getting additional mandates to actually seeing the improvement in the trading?

Marty Chavez

Well, the mandate timeframe is -- its order of months, quarters, it depends on deal flow, and all kinds of drivers. Again, activity which -- activity is the main one. Client activity is the main predictor of our results. And we're not just given a particular client mix or business footprint, we absolutely acknowledge that the business footprint and mix we have is consequence of choices that we made over time. And we know that we need to do better. But again, for all this to flow through to revenues and for those mandates to turn into printed revenues, we need activity.

Operator

Your next question is from the line of Betsy Graseck with Morgan Stanley. Please go ahead.

Betsy Graseck

I have just a slightly different way of asking that question, but on your outlook where you gave your three-year forward revenue potential growth initiatives. I know that part of that came with allocating more headcount to various groups, more headcount to FICC and more headcount to banking. Could you just give us a sense of how much that resource allocation is already done and how much is still left to go in the FICC bucket and the IB bucket and the financing bucket?

Marty Chavez

So, we have had hiring in FICC, net hiring. And as we've mentioned, our lateral hiring rate is up significantly, it doubled from prior year levels. But really net, there is very little effect in headcounts. Where we have made some of these hiring investments particularly is in engineering. That is a leading part of our strategy as we're executing on these growth initiatives, not only the super important detail of having the metrics and dashboards for all of it, but just not just extending our current workflows, but redesigning them, building them with digital channels in addition to the historic voice channel. This is a big part of it. And so, as we mentioned, you've begun to see some of this. I'm not going to break out headcounts, because really it makes more sense to see it holistically.

So, for instance, as we build out some of these platforms and we're investing for growth, in many cases, we're capitalizing the development of that software. And then, once we place it in service, we're going to be depreciating expense. Over the course of three years, you've begun to see some of that flow through into our non-comp line for various initiatives, not just the multiple regulatory initiatives that we had last year, whether it's MiFID II, initial margin implementation resolution, but also just digitizing our platform generally. And so, really, you have to look at it across all the lines of the business. And actually even though compensation ratio is down 110 basis points 2017 versus 2016, as we mentioned, there is some slight upward pressure on the comp ratio as we've made these hiring decisions and people have come on-board. You've seen many of the announcements. We've hired some very senior people, some -- several partners and we're extremely excited about their joining us and what they've already brought to us in the short time. And so that is a little bit of upward pressure on the comp ratio.

But, I would end by saying specifically in banking, we've talked about our reach -- our strategy generally, our coverage strategy, which not only has us covering bankers, covering clients in different sectors by bringing on-board coverage people who specialize in those sectors, but also regional. And so in Atlanta, Dallas, Toronto, Seattle, other cities, we've hired senior bankers to improve our coverage of mid-sized corporates and all of those activities are off to a good start.

Betsy Graseck

Okay. So, what I'm hearing is, you're largely -- you've got the resources in place to execute on the plan?

Marty Chavez

Yes, we do.

Betsy Graseck

And then, second question, just on earnings disclosure. I know, a lot of other folks put the loans into fixed line. And I'm just wondering, is there any thought to either changing your disclosing, the I&L versus the FICC or integrate in a way that can be more apples to apples to how the rest of the Street discloses?

Marty Chavez

So Betsy, we're always working on our discloser. It's something that I'm especially focused on and working with team on. And you're beginning to see bits of that, early days of course. We, for instance, broke out the geographic distribution of revenues, gave you a bit more on the balance sheet, there is a ways to go, of course. And for instance, in HFI loan growth, what you've seen, we've talked about HFI loan growth going from 60 -- it's growing up by $4 billion to 66 overall. And in our upcoming 10-K, we're going to be breaking that down further for you and going into all of the drivers quarter-on-quarter. So there is that. But of course, anything that we can do to have more comparability, it's valuable to us; we know it's value to you; and we know that you're focused on it and we are too. So, it's work in progress.

Betsy Graseck

And then, just lastly on the buyback for 1H 2018. I get the point that it's a bit of a moving target. What I got from the earlier conversation was largely based on how the CCAR test comes out, is that a fair takeaway? And if so, if the CCAR test global shock in particular was similar to last year, does that -- can you give us a sense as to what kind of buybacks you'd have in that scenario?

Marty Chavez

So, Betsy, I wouldn't want to predict how CCAR is going to evolve. There is, as you know, many inputs and complexities to it. And of course, we are constantly engaged with the fed in understanding how they are thinking about all aspects of it, how they're going to treat DTAs for instance relating to tax reform and the remeasurement of them, how they are going to treat the new provisions for NOL. All of these are complex moving parts. But of course, the biggest driver is ultimately the severity of the test and the macro shock, and that's with the fed, and we'll receive it. And so, I don't think it makes any sense to speculate on how the test is, except to say that we understand it, we put a lot of work into implementing it and having an extraordinary and robust firm-wide process for running the test and understanding how it affects all parts of our business.

I would just say that -- we've got this one-time effect of tax legislation. We outlined for you a roughly 70 basis-point reduction in the capital ratios related to that. Having strong capital position to deploy for our clients and wherever we see opportunities is a crucial part of our strategy. And so, that's why we are thinking about the pace that we outlined for you, $5 billion to $6 billion, similar to what we've done in the past few years. And also, given the one-time effect of tax legislation that we just went through our financials in the fourth quarter, thought the actual payments happen over eight years, we are going to be focused on having those capital ratios be robust in the next few quarters.

Operator

Your next question is from the line of Brennan Hawken with UBS. Please go ahead.

Brennan Hawken

So, first, just a couple questions on trying to figure out what's one-time and not. You guys had a loss -- you highlighted a loss on I&L tied to a secured loan. Was that related to Steinhoff and was there any other impact to Steinhoff in any other of the trading lines? And can you talk about how much of the 4Q we should think about as one-time and therefore what's the right jumping off point? Because ex legal, it was pretty substantially above where you've been running. So, just trying to unpack some of that commentary?

Marty Chavez

Sure, Brennan. So, in the prepared part, wanted to just come right, I mentioned that we took a $130 million loss on a single structured loan and that was Steinhoff. And I know one of the -- well, let's compare and contrast. So, we took full mark on that position. And it's very public who participated in that loan and at what levels. And we presented that loss in debt I&L; others have presented it in slightly different places. And as for the second part of your question, do we have other exposures in and around Steinhoff, the answer is no.

Brennan Hawken

And then, as far as non-comp expense goes, it was a pretty elevated level. I know you made some reference to investments that you guys are making, but it also seems -- I know, you laid out $127 million donation, so obviously that's one-time. It seems like there is some accelerated depreciation and what have you. Is there -- are we better off looking at 3Q as the jumping off point for non-comp or is some of the uplift quarter-over-quarter reflective of investment and what have you? Just trying to think about what the right jump off point is?

Marty Chavez

Sure, Brennan. So, the -- of course, as you identified, we made the traditional fourth quarter allocation to Goldman Sachs Gives and so that is a very big part of the sequential comparison. But rather than look at third quarter or fourth quarter, much more relevant for your analysis and for the way we're thinking about the business to look at full year. And so, full year, it's up 5%, in line with the revenue growth and that was all deliberate. This is something that we look at every day and every week, of course. And it's importantly the annual increase is driven by investments to fund the growth plan that we outlined for you. And so, I'll break it down this way and say that the growth, the full year on full year growth was really balanced across these three areas.

So, the first is investments in Marcus, something that we've talked a fair bit about, huge and important and exciting area of growth for us and one of the pillars of our growth plan. And then second part of the year-on-year growth in non-comp was consolidated investment entity expenses. So, as we make investments, some of them for accounting purposes, need to be consolidated on our balance sheet. And so, you'll see their expenses show up there. And then, the third part is on technology and consulting. We've always had an overweight to engineering, as you know, and building software. And that's served us in great stead over many, many decades and we continue to do that. The way in which we make those investments is evolving. We now have a large emphasis on using and especially participating in and contributing to and creating open source. And so, the nature of it has changed. But yes, there is a -- in that growth year-on-year, there is supporting regulatory implementation. Some of those activities are behind us such as initial margin, no parts of it continue. MiFID II, the big bang on MiFID II go live has already happened, as you know, but there is ongoing work. Really across the firm, there is investments in technology to improve efficiency and scale. And also in that line, there is more software and service. So, as I mentioned briefly, we build the software, capitalize some of the expense and then as it gets deployed, we're depreciating it ratably over three years. And so you're seeing in that line some of those effect as well. And it's something that we expect and embrace and we're investing for growth and pivoting to executing on the growth plan and delivering earnings growth that non-comp growth proceeds revenue generation. But, I can assure you that we will not lose the historic discipline that we have here on cost management.

Operator

Your next question comes from the line of Guy Moszkowski with Autonomous Research. Please go ahead.

Guy Moszkowski

I just wanted to follow up on expenses and in particular the comp ratio. As you've pointed out, you showed a lot of discipline in getting the comp ratio down by a little bit over a percent, despite the investments that you're making. And I was just wondering should we expect that that could keep going in say a 5% revenue growth environment like what you had last year, should we expect that the comp ratio would come down again meaningfully or with the acceleration of some of the investments in the initiatives that you've laid out. Should we expect that that improvement in the comp ratio could stall?

Marty Chavez

So, we talk about it and it's just a core part of how we operate, which is operating leverage. So, as revenues increase, of course, we want to see pretax EPS, everything increasing faster. And that is a core part of how we operate. And as we're building out on the growth initiatives, I can't emphasize enough that of course talent, our people are at the core of everything we do. Paying for performance, inspiring the best people to be here, attracting and retaining them is the core part of the strategy and also, going along with that supporting it having great engineers and leading with digital platforms and automated workflows, not just extending the current workflows. And so, of course we're investing in that. But yes, as we build out these new initiatives and these new work flows and do them in a modern way, you will continue to see operating leverage flow through.

Guy Moszkowski

Okay. That's helpful. Thanks. And then, just as a follow-up on some of the questions before on I&L and in particular the equity investing line. Do you have any early thoughts on the impact of Basel IV on the -- which I know is an informal term, but the changes in the Basel risk weighting on the RWAs and therefore the capital that are associated with the assets in I&L with some of these private equity investments? It seems like the potential impacts there are quite significant.

Marty Chavez

So, I will just say, Basel III, as it continues to evolve, of course, we're close to all of those activities that happened in the back half of last year. And as you know, many of the implementation and roll out timeframes were changed and significantly the Basel committee left room for a great deal of more work on calibrations of various kinds but -- and standardizing elsewhere. And fundamental review of the trading book continues to be -- there is parts of it, the calibration that remain open and we think that that's appropriate and wise. But as to how this is all going to arise for us, I won't speculate on it until the calibrations evolve, we see how the 72.5% floor relates to the Collins but most importantly, the NPR that we'll actually implement this in the U.S.

Guy Moszkowski

So, too early to do much there?

Marty Chavez

Yes.

Guy Moszkowski

And then, just one final follow-up on the comment that you made about the consolidated entities impacting your non-personnel expense growth. Are largely all of those consolidated entities I&L investment entities or is there something else?

Marty Chavez

They're I&L entities.

Operator

Your next question is from the line of Steven Chubak with Nomura Instinet. Please go ahead.

Steven Chubak

Hey, Marty. So, I wanted to kick things off with a question on FICC pricing. It was something you mentioned in your prepared remarks. You noted that the tightening of the bid offer was a source of fee pressure in the quarter. And I have heard others allude to that as well. I'm just wondering if you can give us some color as to what specific factors drove that contraction in spreads. I'm just trying to gauge how much of that's ephemeral versus a function of maybe increased competition which may persist going forward?

Marty Chavez

Yes. So, that is one of the many important questions. We generally notice that at low levels, for instance of interest rates, but also at low level of volatility, it's -- we'll see this effect, bid offer compression. And it makes sense. So, if the clients are active, they're looking to buy and sell, then there is generally more volatility and those activities, those two phenomena can reinforce one another. But, when there isn't much movement, it makes sense that the bid offer would compress. And as for whether it's ephemeral, whether it's secular or cyclic, extremely hard to assess that. As rates break out of their range bound levels, as the tenure yields on a variety of govies start moving around, perhaps we'll have an opportunity to get more answers to that question.

But, as we say all the time and it's really how we think and act, rather than predict what's ephemeral and what's not and what's going to change and when, it's important to be prepared for all of these eventualities and to build optionality for them. So, one of the many things we're doing on this front and it's one of the topics that I mentioned when I talked about how our various engineering activities are transforming all of the businesses of the firm not confined to any one business. But there is a huge emphasis in our market-making businesses where we've always had this kind of strat engineering activity and had an overweight to that.

And so, let's look for instance at the equity markets. Commissions over the last 18 years have declined to very small percentage of where they were and yet that business continues to thrive. And there, one of the contributors in addition to just having great talent is the automated platform that we've built for systematic market-making and for trading out of risk in that environment where, in that case, could commissions, but could equally be bid offer spreads are reducing. This is generating better results for our clients especially and also for shareholders. Well, why confine that activity which is something that is historical strength of ours to equities. And so, we've been bringing that to all of our FICC businesses, most obviously businesses such as foreign exchange, but not stopping at foreign exchange. And so, we formed last year a group within our securities division, our ICS business, called security systemic solutions, which is extending these approaches across all of our businesses. And really taking a consistent approach in FICC and equities, which is execution, services, capital, content, analytics, increasingly sharing that directly with clients, digitally extending it over the web and taking this platform such that we've had for years and building it out to our clients. That's a key part of the strategy and builds optionality for variety states of the world. If the bid offer compression trends out to be ephemeral, then having done all this will make it even better. And if it turns out to be more persistent, we'll have a plan in place.

Steven Chubak

Thanks for all that color, Marty. I mean, admittedly, a lot of the debate has been around whether some of those efforts to take what you learned from the equities paradigm and apply that to more homogenous products, like FX, where there's been a great degree of success. I think there is a little bit more skepticism as to whether that success can be replicated with more heterogeneous products like corporate credit, but just curious to see whether you think that that distinction is an important one?

Marty Chavez

We have a strong view on that one. So, I think historically, you would often hear people say, well, all this works great for equities or homogeneous products. It's just that it's just FICC. But how is it going to work, when you got so many different CUSIPs, instead of just one stock CUSIP for the company, that same company might have 600 bond CUSIPs. And so, what I will note there is that equities, I'm not so sure that it's all that homogeneous. When you look at small caps and when you look at the large number of listed option instruments on every strike and every tender, on every underlying and all of the different product formats that you see an equity, everything from cash to derivatives to systemic trading strategies to EPS, there is an awful lot of right in complexity in equities. And as to this factor of 600 to 1 or so on bond CUSIPs to equity CUSIPs, one thing, and this is the computer scientist in me, would just say, well that's something that Moore's law more and the doubling of compute power every 18 to 24 months compounding over decades, the computers catch up and can handle that extra complexity.

So, really, I would say to package all that up is that we've always been a leader in our engineering, in our math and software capability. And that's an important contributor to all of our businesses that is one of the pillars together with the bankers and the traders and the sales people and everyone in the federation, all of our people. But that's something that we're going to continue to lead with and differentiate ourselves in.

Operator

Your next question is from the line of Devin Ryan with JMP Securities. Please go ahead.

Devin Ryan

Maybe just to come back here on FICC again. It seems like a lot of conversations and even on the call today we're talking a lot about volatility in the industry, volatility recover. But, I guess my question is should we be careful what we ask for? Because it seems that this kind of benign backdrop that we've been in here recently has been good for other businesses. And so, how should we think about volatility and the mix of what that means for all of Goldman Sachs? Is it a way mean reversion of volatility and that's good for the whole business or is this actually environment what you're seeing the benefits of the diversification of the firm, kind of the natural head to your business? I am just trying to think about that because it comes up quite a bit.

Marty Chavez

Well, of course, it's always the right amounts of volatility and organized around trends that draw active investors in who see also generation opportunities. That's always the goldilocks scenario. And of course, we have observed and so have others that there can be a countercyclical nature to the FICC business. But really that's just another of saying if you've got a diversified set of businesses, then, well, of course, one would love all of the businesses to all perform well. At the same time, if they all went up 18% year-on-year for instance as the banking segment did, then you -- over time you'd have to ask yourself whether really all of that uncorrelated and diversified. So, volatility generally, just uncertainty, we are in that business; that is the core of our business. And you can imagine in some hypothetical state that we don't see and is extraordinarily unlikely, there was no volatility and everything just stayed the same forever. In that kind of environment, there wouldn't be much to do on any of our businesses or anyone's business really. And so, while there's always puts and takes, and it's difficult to foresee exactly how diversified and uncorrelated businesses are going to play out, in any environment that kind of uncertainty, we can engage with clients and share content and insights with them. And when they have risk they don't want or want risk that they don't have, we're there to provide. That is generally a good backdrop for all of our businesses.

Devin Ryan

Got it. Thank you. And then, a quick follow-up here. Goldman has obviously been innovator in the industry over time. And so, I am just curious how the thinking is evolved on crypto currencies as an opportunity? What the process in terms of thinking about getting into a business like that would be? And I know it's a small asset class but obviously, you talk about an area with plenty of volatility and not being over saturated yet. So, just curious, current thoughts there.

Marty Chavez

So, crypto currencies, it's so much of the moment of the zeitgeist. Last time I checked, which was last week, there were 1,300 crypto currencies, I am sure there's way more today. And so, that's just something that's happening. At the same time, also important to step back, really a million years ago when I was a grad student in computer science, this problem that's at the core crypto currencies is an old, old one. We used to call it the Byzantine Generals Problem. It's really been around for decades. And the problem is, how do you get a bunch of people who are not necessarily coordinated and not necessarily reliable and don't necessarily have great communication all to agree on shared reality. And so, what is especially interesting about Bitcoin is that someone -- there is some group of people, we don't know exactly who they were, presented a particularly elegant solution to this relatively old problem and they made a specific application of this problem. How do you agree, how do you get a bunch of people to agree on who paid what to whom. And so, that's the distributed general ledger. Really the way we're thinking about this whole area is that it's really a much bigger topic, it's really the blockchain or the distributed general ledger that is of great and very broad application potentially. And we're always talking about cloud services and APIs and open software as major drivers of innovation not just for the industry, but also for us. I wouldn't be too surprised if in a few years we reliably add blockchain to that list of important drivers of innovation. So, we really want to distinguish the blockchain which is in area of huge emphasis and investments across our industry and across many industries from a particular application of blockchain which tends to get all the news, cycles which is cryptal currencies.

So, having distinguished those two, let's talk a little bit about crypto currencies. Now, it's well known, it's some of the exchanges have introduced contracts, better referenced to Bitcoin. And who knows what other kinds of crypto currencies or baskets of crypto currencies, they may come out with products on. And so, on the back of our clients asking us, will you offer clearing in these contracts? Well, we're in that business of client facilitation. And so, we want a response to those client requests, and we have. And we're in also the businesses of being careful with our shareholders' capital. And so, we're doing that with extreme, prudence and caution as we learn. Now, the broader question of will there be trading in these instruments that are linked to Bitcoin, there is just a huge number of topics to address and being a part of the industry, we're working on all of that. Custody is a part of it and it's a very complex one. So, it's really too early to say how that will evolve for the industry or for ourselves.

Operator

Your next question comes from the line of Andrew Lim with Société Générale. Please go ahead.

Andrew Lim

So, for commodities, obviously you've downsized the business. I was wondering if you could give us a sense of how much by and perhaps maybe you could say within the full year 2016 commodity revenue context, how much of those revenues have been downsized by?

Marty Chavez

So, I won't break it out exactly that way, Andrew. But, one way to think about the business is really to step back and look at the full year. So, in the full year, four out of the five FICC businesses are down, one of them which is relatively smaller for us, which is mortgages business, was up. And we talked about many others in the industry since it is a broad phenomenon, have talked about low volatility, low client activity, tighter credit spreads, tighter bid offer spreads playing through and all of those areas. But here is something I will quantify for you. I did it on the last call, you'll recall that last quarter, I mentioned that if you compared nine months on nine months, half of the FICC's decline was attributable to our commodities business. If you compare full year 2017 to full year 2016, one-third of the decline in FICC revenues is attributable to our commodities business.

Operator

At this time, there are no further questions. Please continue with any closing remarks.

Marty Chavez

Since there are no more questions, I’d like to take a moment to thank everyone for joining the call. On behalf of our senior management team, we hope to see many of you in the coming months. If any additional questions arise in the meantime, please don’t hesitate to reach out to Heather. Otherwise, enjoy the rest of your day. And we look forward to speaking with you on our first quarter call in April.