

PNC BANK: INTEREST RATE HEDGING UNDER POLITICAL UNCERTAINTY

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Aaron Cole:

And with that, let's go ahead and begin today's PNC Advisory Series event. And it's my pleasure to turn today's call over to our moderator for today, and that is Mr. Jim Bernier, Executive Vice President of PNC Bank and Head of the Derivatives Products Group. Jim, with that, I'll turn the floor over to you.

Jim Bernier:

That's great. Thanks so much, Aaron, and good afternoon, everyone, and welcome to our PNC Advisory Series webinar, Interest Rate Hedging under Political Uncertainty, and thank you for joining us. As Aaron mentioned, my name is Jim Bernier. I'm the head of PNC's Derivative Products Group, and I'll be your moderator today.

Before we get started with our presentation, I wanted to highlight PNC's ongoing commitment to providing market insights, new ideas, and best practices like you're about to hear. Our commitment is reflected in the types of conversations our bankers are having with companies like yours every day. It's also reflected in our PNC Ideas Thought Leadership Series, which features a monthly e-newsletter, live webinars, and a dedicated website at PNC.com/ideas. From brief videos, articles and economic reports to financial market commentary and webinar replays, we continue to choose topics and formulate our ideas based on the input that we get from you. So at the end of today's session, please provide the feedback we need to keep focusing on the right information for you and your company.

Okay, with that, let's get started with our event. We're excited to have Edwin Martinez and Matt Gelles with us today as our presenters. Both Edwin and Matt have more than 10 years' experience in capital markets and commercial banking, where they have advised, structured, and executed interest-rate strategies for thousands of clients. They will discuss how companies should be armed with a comprehensive risk management policy and exercise discipline in implementing their hedging strategy, regardless of the political environment and market conditions. We will also facilitate a question-and-answer session at the end of the presentation. You can submit questions any time throughout the presentation using the questions widget found in the lower portion of your screen.

So with all that, let me turn it over to the experts, and they'll take us from here. And again, thank you very much for joining us. Matt, I'll hand it over to you to begin.

Matt Gelles:

Great, thanks, Jim. And then also once again, thank you to everyone on the line that's joining us today. We greatly appreciate your time and certainly look forward to presenting our thoughts with respect to interest-rate hedging under political uncertainty.

Diving into our research of key rates and economic indicators from prior election cycles, we certainly had a few theories as to what the information may suggest, but I have to say with this particular cycle seeming more polarizing, more volatile, and more disruptive, I know it kept me pretty open-minded with respect to what we may find here.

Before we dig into some of the historical data, we're going to start out with a couple of polling questions here to see how well you know your history with respect to movements in interest rates during political cycles and in election years. And so we'll open up here now with our first polling question. And that starts us off with, have interest rates historically moved a certain direction corresponding to the political party of the President in office? So we'll see if the audience here expects any correlation to either party.

All right, and let's see what the audience expects here with respect to either political party that may be in office and any particular correlation. Okay, so we do have the audience anticipating to see some sort of correlation with respect to either party. So certainly, it will be good to dig into the data here to put that on display.

All right, we'll now move on to the second polling question here, again, to kick us off. The second polling question is, has the Federal Reserve historically raised the Fed Funds target rate in an election year? So has the Fed adjusted their policy rate in a particular election year? See if there's any speculation here on the line, if the Fed has perhaps any political tendencies.

Okay, and so the audience here is anticipating that the Fed does not historically raise the target rate during the election year. So it will be interesting, once again, to dig into the data here. And to do that, I'm going to flip it over to my co-presenter here today. I'll flip it over to Edwin to dive into our research.

Edwin Martinez:

Thank you very much, Matt. So it's interesting to see what everybody answered with respect to those two polling questions. So let's take a look at the data here and try to see whether your suspicions are actually true or not.

The key to running a successful business is to manage a lot of variables that affect your day-to-day operations; everybody here knows that. Uncertainty is a manager's number-one enemy. When you have uncertainty, it makes a company more tentative and hesitant to invest, and there is data to say that increase in business uncertainty is associated with declines in economic activity.

During an election cycle, it heightens that level of uncertainty. Much has been said and written about how the stock market reacts during an election cycle and the direction stock prices take, depending on the party that wins. Today what we're going to try to do is, we're going to try to apply that same question as they pertain to interest rates.

So let's take a look at the first slide that we have here with the data in there, which is slide 7. So just a few notes here. What we try to do [technical difficulty]. So when we're trying to do the data here, we try to look at a few measures that we have put together. One is the volatility in the period immediately before and immediately after an election cycle. And we try to look at the volatility as measured by the standard deviation. And we'll also try to see what the trading range looks like. Later on, we'll also try to see what the direction of the rates will be after the election. So let's take a look at the data that we have here.

Not surprisingly, what we see is that short-term rates are more volatile than long-term rates. That is not surprising; that is an observation that we know is true in the marketplace. Additionally, we do know that short-term rates is the subject of monetary policy. And as such, it's more vulnerable to rate movements.

Let's take a look at the specific data that we see for each party involved. When we look at standard deviations for the Republican Party or the Democratic Party, what we do see is that under the Republican Party, whenever they win the White House, what's going to happen is you're going to see standard deviations that are slightly higher. But the caveat there is that the reason why you see that is because there is an outlier in the data. During the Reagan era, which started in 1980 and ended in 1988, just happened to coincide with the time when Paul Volcker, the then-Chairman of the Federal Reserve, started aggressively pursuing monetary policy to calibrate the economy.

So if you actually take that outlier out of the dataset, what we find is rather surprising. The standard deviation under a Republican administration and the standard deviation under a Democratic administration are — they're almost identical to each other. Just to give you some rough numbers, 0.28% is the average standard deviation under Republican administrations, and you compare that to 0.29% for the standard deviation under a Democratic administration. It's safe to say that they are virtually identical.

If we look at long-term rates such as the 10-year Treasury yield, the results are very similar. With the Reagan administration in there, the standard deviation under a Republican administration is 0.39%. But if you take it out, the standard deviation goes down to 0.21%. That compares to a Democratic administration with an average standard deviation of 0.22%. So that is virtually identical as well.

The results are slightly different if we look at what happens in the six months after an election cycle. If you look at Republican administrations, what happens is that the standard deviation for short-term rates as signified by the effective Fed Funds target rate or the effective Fed Funds, is significantly higher. It's 1.12%. That compares to the standard deviation under a Democratic administration, which is only 0.18%, so it's almost 10 times as high. But again, because there is an outlier, we can strip that out. And once we strip the Reagan administration out, the standard deviation falls to 0.74%, still a pretty significant difference.

What's interesting is that when we flip it and look at the long-term rates, the opposite is what we observe. For five-year Treasury yields and 10-year Treasury yields, the Democratic administrations tend to be more volatile — 0.47% for the five-year yield, 0.37% for the five-year yield under Republican administration. Same can be said under the 10-year yield — 0.42% for the Democrats, 0.23% for the Republicans.

So the conclusion we can probably draw on this is this: There's really no discernible difference in volatility overall. That is especially true in the period prior to the election. And because we saw a flip-flop in the period after the election, we're going to say that the findings are inconclusive.

Now I'm going to shift to the direction of interest rates. So if you go to the next slide, which is slide 8, I wanted to look at where rates ended up when you compare the levels at the start of the administration and at the end of the administration, going back to 1972, which is the Nixon or Ford era. We had the Republicans holding the Presidency six times and the Democrats holding the Presidency five times, so that gives you a pretty good sample size there, with both parties holding the Presidency roughly equal amounts of time.

And what we found is the following. For short-term rates, which is the Fed Funds data, for the Republican administration, two terms, they ended up a little bit higher, and for four terms, they ended up slightly lower. For the Democrats, it's not that much difference: three terms, rates ended higher, and two terms were effectively flat. So again, with respect to short-term rates, it looks like the data is inconclusive. It doesn't look like there's a pattern there.

If you look at long-term rates, it's pretty similar. For the Republicans, rates ended lower in every term other than the Nixon or Ford administration. And for the Democrats, rates ended higher and lower on two occasions each up to the present. Again, the conclusion is there's no discernible difference. If I try to change the data just that appeared immediately before and immediately after the election, the results are exactly the same.

So we go to the next question, in the sense that if rates do not have a very significant correlation to the party in power, the question becomes, does the winning party influence the economy? In order to do this, what we did was we took a look at three indices. The first one is a direct reflection of the performance of the economy, which is the real GDP growth rate. And what we found is that under the Democrats, growth on average was 17 basis points higher; 17 basis points means 0.17%. We said that 0.17% is not statistically significant. So in terms of at least real GDP growth, it doesn't look like there's much of a difference between the two administrations.

Unemployment is another index or another economic indicator we looked at. And on average what we found was even more surprising. The difference between Republican administrations and Democratic administrations is only one basis point; that 0.01%. So if we said 17 basis points is not statistically significant, most certainly we will say that one basis point is not statistically significant, either.

We now turn to the last index that we looked at, which is consumer price inflation, and the results are the same. On average, inflation is 88 basis points higher during Republican terms. But again, the caveat there is that includes the '80s, when inflation was close to 10%. So if you take those outliers out of the equation, then you have more favorable — or not, I'm sorry — more comparable numbers between Republican and Democratic administrations.

So as we look at how each party affects the economy, we find that economic indicators are not really consistent with the political cycle, but they're more consistent with the business cycle. The question then becomes, can we extend this analysis to interest rates? And the answer seems to be yes. So what we did was we tried to compare the economic data that we just discussed and tried to see how they relate to short-term rates.

So you look at the graph that you see on page 10, and you will see that we have the effective Fed Funds rate as it's compared to the PCE deflator, the Personal Consumption Expenditures deflator. PCE deflator is the preferred index that the Fed uses, so that's a pretty good index to use to try to see where inflation is. And you'll look to see that there is a direct relationship between the effective Fed Funds rate and inflation. That is not surprising, and the reason for that is because the Fed's mandate, dual mandate, is to make sure that inflation is stable and unemployment is stable as well, which means that if inflation is higher, then that means the Fed will raise rates. And if inflation is lower, that means that the Fed will lower rates. So it's not surprising that you see a direct correlation there.

If you look at U.S. unemployment, the relationship is actually flipped. There is an inverse relationship between the Fed Funds rate and U.S. unemployment. Again, that's not so surprising, and the reason for that is because the Fed does look pretty closely at unemployment. If unemployment is low, the fear there is that it will translate to higher inflation rates, and that means that — I'm sorry — yes, if the unemployment rate is low, higher inflation rates, the Fed will raise rates. If the unemployment rate is high, that means the Fed will want to stimulate the economy, and that means they will lower rates. And as you can see, there is an inverse relationship between the two indices.

Lastly, we take a look at the effective Fed Funds rate and the nominal GDP. And not too surprisingly, those two are correlated as well. The nominal GDP typically is directly related with the inflation rate. And as such, you will see the same relationship there.

Now let's go to the next slide and see how rates are related to the U.S. economy. And in fact, the argument here is even stronger. The trend in real GDP plus the inflation rate equals the trend in the nominal GDP. And because of that, you can see that the 10-year Treasury yield and the inflation rate as embodied by the Personal Consumption Expenditures deflator, are actually directly related. That is the chart you see on the lower left-hand corner. As you can see, they tend to track each other.

And finally, if you look at the chart on the upper right-hand corner, the 10-year Treasury yield and the nominal GDP, just by its very definition, will be directly correlated as well.

Let's turn to the next slide. A question I usually get from a lot of people is that, does the market price in who will win this election? And as such, how does the market react?

So what we did was we took a look at this chart that you see in front of you. These are the implied probabilities of what the Fed will do. If you notice that the first column you see the Fed meeting dates on there, and then the column to the left of that, you see some probabilities. Those are the implied probabilities of a rate hike. And what you can see is that the market is pricing in a 72.5% chance that the Fed will move in December. The reason why this is significant is because these numbers that you see are embodiments of what the investors and traders are pricing into the forward rates and to the interest rates in general. So that leads me to believe that, for the most part, the market is ignoring what is happening in the election right now.

Just a few notes before I hand it back over to Matt. I wanted to look at monetary policy as it looked like in the past elections, and this is in answer to one of the polling questions we had. In eight of the 11 Presidential election years since 1972, we looked at what the Fed has done. And it looks like they have adjusted rates in either direction by at least 100 basis points. In fact, in the election years since 1972, the Fed has adjusted rates five of those years higher, and three times they have adjusted it lower. So the Fed is pretty active, at least in the years where an election is held.

There was effectively no move on three occasions — '76, '96, and 2012. I'll put a caveat in there in the sense that the Fed really only became aggressive in its monetary policy from 1979 onwards. So 1976 is self-explanatory.

The market, again, currently anticipates a 72.5% probability the Fed will move in December, but it's curious to see that they are only pricing in a 17.1% chance that they will do anything on their November 2 meeting, the last meeting before the elections.

So with that, I'm going to turn it back over to Matt. We've seen what the past looks like. Let's take a look at what the present holds for us at the moment.

Matt Gelles:

All right, thank you very much, Edwin. And looking now at the current environment that we currently operate for Fed policy and interest rates, as Edwin had described, the Fed Funds futures market currently projects with approximately 72% probability of a hike in December. And the FOMC, as you'll see in the illustration on the right-hand side of the page, which depicts the Fed's Summary of Economic Projections, or SEP, that the Fed does anticipate one additional hike for the remainder of 2016 as well. Note also, say, that this forecast matches PNC Economics' view of a hike in December, which they have had in place for some time now.

I'll also contrast the current environment that we're in with expecting only one hike for 2016 — a very sharp contrast to the median forecast that was provided by the Fed this same summer of economic projections that the Fed had provided at their December 2015 meeting, which was the last time that they had increased the short-term target rate. They were actually looking for about four hikes in 2016 when they released this information as of that meeting. So quite the year that we've experienced in 2016 with respect to the global economy, the U.S. economy, and the financial markets. And here we are, expecting just one hike to finalize the year and take it to the end of 2016.

Also of relevance in this illustration that we've put on the slide from the Fed and their economic projections is their current anticipated policy when you're taking that into account of their projections for the economy as well. And you'll notice that the data points there — real GDP, the unemployment rate, and core PCE — which is a proxy for inflation very similar to data that we had looked at over historical time periods and wanted to certainly have that follow-through here and connect the two — but you can see here that over the next several years, the Fed is anticipating moderate levels of real GDP growth, around 2%, a tightening labor market, and increases to inflation that would raise the nominal level of GDP that Edwin had described.

In addition to the one hike that the Fed is forecasting for this year, you can see that with that growth in the economy and inflation and improvement in labor markets, that the Fed is additionally projecting two hikes in 2017, and then three hikes in 2018 and 2019, taking the target rate up to the long-run rate that you see there, which the Fed provides to the markets that is the rate that achieves balance between maximizing employment and also creating stable prices, which is the Fed's dual mandate.

This also demonstrates the connection between the Fed's frequent comments to the market surrounding their data dependency. So based on these particular expectations for the economy, those are the Fed Funds target rates that the Fed would expect at the end of each particular year, which demonstrates those year-over-year increases.

On this slide, we also want to highlight the concept of the Taylor Rule in conjunction with the low rate environment we currently find ourselves. The Taylor Rule is a quantitative measure of the appropriate level of the Fed Funds target rate based on two factors — the gap between inflation and the Fed's target, and also the economic output gap versus the target that the FOMC would set. And by looking at the chart there, you can see that we're a pretty far cry from what the Taylor Rule model suggests the Fed Funds target rate would sit currently today at, at a level of 3.64%, a pretty large disparity.

I'll point out also, this relationship has certainly flipped over, over the historical time period that we've shown, with the Fed being behind the curve on both sides, with them being a little bit too tight and a little bit too loose. But I will make the comparison now of the difference that we see. We haven't been at this level of delta between the Taylor Rule and actual policy until you go back to the 1970s period. And the results of the 1970s period Edwin did elaborate on, a little bit on the inflation outlook that became in the late '70s and early '80s that the U.S. economy had worked its way through at that point in time.

Lastly on this slide, you'll find a comparison on the bottom right of the market's current pricing of short-term rates as compared to the Fed's projections, or the median Fed Funds projections from their Statement of Economic Projections. So even though FOMC projects a really gradual pace of tightening over the coming years, especially by historical standards, the market is pricing in an even more gradual pace of increases, about a one-hike-per-year pace that the market's pricing in, versus what we just elaborated on with the Fed's expectation.

And as we dig into the latter parts of the presentation with respect to interest-rate risk management strategies, keep in mind that the products that we will discuss, a significant amount of them are priced off of the market's expectation for short-term rates. And so you can once again see the contrast of what the current market environment, where you're able to protect yourself against rising rates, what value that has versus what even the Fed expects at a very gradual pace.

And just to give you that historical context, the Fed has actually raised rates over the past four tightening cycles by a much faster pace than they currently project, which they've raised rates by between 2% and 3% per year over those past four cycles. So a very large discrepancy between how they've done things in the past and how we look at things moving forward.

On the following slide, we look closer at long-term rates now, and Treasury yields continue to trade at generational lows. Doing this evaluation of the historical data and comparing rates today with those over the past 40 years that Edwin elaborated on, it really shows the staunch contrast to the unprecedented market environment we currently find ourselves.

Very significant to the description of where long-term rates currently trade is the chart on the bottom left-hand side of the page there. It's very interesting to study what's called the "term premium." As long-term rates are comprised of the market's expectation of short-term rates plus a premium demanded by investors in these securities against upside surprises in growth and in inflation, it really shows, and it's very indicative of the environment that we currently operate in, that the term premium is actually negative.

So investors in long-term securities are actually not prepared at all if there are any upside surprises in GDP growth and economic growth. And with respect to inflationary pressures, there's not that additional yield that, as you can see going over the left-hand side of the chart there, these investors have demanded in some cases an immense amount of protection against those upside surprises in growth and inflation. And currently, they're in effect willing to pay, in this market with the negative premium, versus receive additional compensation to protect against that upside risk.

And really, with the current levels, even a slight upside surprise in growth or inflation — both here, certainly, in the U.S., but also in other developed and emerging-market economies, where interest rates are very low — you can see the extremely low yields in Germany and Japan, where we've actually seen 10-year note yields that were in negative territory. That has certainly created some significant demand in fund flows into U.S. Treasury securities, which has added to that term premium moving lower over time.

At this point, I'm going to turn the webinar here back over to Edwin, and he's going to introduce for you the concepts of interest-rate risk management. And also, we have a couple more polling questions for you to see how your companies may approach risk to interest rates currently.

Edwin Martinez:

Thank you very much, Matt. So what we wanted to do was to go to our next polling question. So if we can go to the next slide. And our question is, does your company currently have a formal interest-rate risk management policy? So I'm going to give you some time to answer that. The question really is, do you have a plan of action? Is it explicitly clear what your stated objectives are? And more importantly, if you know what your objectives are, do you know what you want to do going forward? So let's give everybody a few more seconds and then we'll take a look at the answer.

Okay, so let's take a look at the answers. And it looks like it's pretty close. About 35% of you say yes, about 34% say no, and about 31% of you say, "I've never even thought about it."

Let's take a look at the next question. And the question is, how often does your company's management team review your current and anticipated interest-rate risk position? In other words, if you do have an interest-rate risk management policy, is it a static one? Is it a dynamic one? Do you revisit it, or is it something that you put in place and then you lock in a safe? Let's give everybody a few more seconds, and then we'll take a look at the answers.

Okay. So it looks like most of you actually do have an interest-rate risk management policy that is dynamic. You periodically adjust it, revisit it. Some of you even do it as often as quarterly.

So let's go to the next slide. At PNC, our main concern is to make sure that our clients are doing the right thing for themselves. We help our customers access the most favorable financing vehicle available, and that could take the form of conventional loans such as revolvers, term loans, commercial mortgages, and so on and so forth. Most of these facilities are in a variable-rate profile. Some of you do have access to the capital markets, which means you can issue debt in the form of corporate notes and bonds or private placements. Most of those vehicles are in a fixed-rate profile.

Once you have accessed the most efficient financing vehicle, unfortunately, this does not necessarily mean that you also achieve your stated objective of rate profile. Some of them will be more tilted towards fixed rates; some of them will be tilted more towards floating rates. And that's where we come in. The Derivative Products Group is in there to make sure that we are able to help our customers out. Borrowers can use us as a resource in arriving at their desired rate profile, whatever that may be. It could be 50% fixed, 50% floating, and so on and so forth.

We advocate for you to have a strategy, or at least a thought process, a plan of action, with regards to interest rate risk. The process of implementing this policy should include, among other things, one, setting an objective — you have to know exactly what your goals are; you want to be able to identify and quantify what your exposures are with very specific metrics in dollar terms or by using statistical inference. The third one is something that Matt will be discussing in more detail. You want to evaluate and look at what products are available for you, what hedging products you can use, and that's definitely something we can help you with. And finally, you want to be able to implement your strategy and exercise discipline to make sure you are managing your risk appropriately.

With that, I'll turn it back over to Matt, and he will discuss it in more detail.

Matt Gelles:

Thank you, Edwin. And jumping more into the weeds following Edwin's overview here, the combination of the interest-rate risk management policy and documentation allows companies to quickly react to market opportunities while maintaining effective corporate governance as well. Actively maintaining the policy, as many of you described with the polling results, and the documentation, it certainly provides your company with an advantage throughout interest-rate cycles and your flexibility and ability to act opportunistically.

A great recent example of how a prepared company may be able to react versus one without a policy and documentation in place would have been that of the surprise the market received back at the end of June with the Brexit vote. So, for example, a particular company that had a policy in place at that time allowing for fixed or hedged debt in the range of 50% to 70% of its total debt, but with a little underweight to that at the current time — perhaps closer to that 50% level — but in search of the right market opportunity to add to their fixed-rate total, the company with their policy prepared and their documentation in place would have then been able to react to that significant market opportunity, where we did see long-term rates dip pretty substantially in the weeks following the vote, and would have, perhaps, been able to execute a strategy such as a pay-fix swap or enter into options contracts that would have been able to protect themselves against risk over the longer term, against rising interest rates based on that event.

In contrast to that, a company that perhaps would not have had their — would have had a thought process or strategy surrounding rate risk or, of course, the necessary documentation as well, may have missed the opportunity to fine-tune their rate risk at those particular levels. So a big consideration there, and the markets can, of course, move quickly. And it goes back to the fact of being prepared for those market opportunities.

Now, looking specifically at the interest-rate risk policy, there are several keys to it, and the first of which Edwin discussed a little bit with respect to the overall hedging strategy, which includes the amount of total debt that would be fixed or hedged. And this really has to do with your company's risk tolerance being defined or prescribed in the policy.

The other factors included in the policy include who you may want to have from a corporate governance perspective as to who would be able to execute trades. And then also, the policy would even dig down into who would touch the contracts through their respective life cycles. And this would include everyone from finance to treasury to accounting to your legal department. So all of those would typically be prescribed in the policy so that you're very much prepared for market opportunities.

Lastly in the policy, you would define and evaluate the products that would be your preference to use within meeting your debt mix objectives. And once again, we'll dig into those, the very common products that are utilized, in a couple of slides here.

With respect to the documentation side of things, the key here, and I'm sure many of you heard your partners here at PNC talk about it within the concept of interest-rate risk, is the master agreement and schedule are the key documents when it comes to executing derivative strategies.

Now, the ISDA outlines both parties' rights and responsibilities and governs any hedging contracts that may be executed. And I say, "May be executed." I'll stress that because the ISDA acts more as a shelf document and doesn't necessarily obligate you to actually enter into any contracts underneath that; that is, the agreement. It simply enables you to be prepared, which we here at PNC think is a risk management strategy on its own.

There have been, also, additional documents that have been added to the fray over recent years that are very much important in the new regulatory regime that we're in. And these have to do with the protocols and documents under the Dodd-Frank legislation that enable users to meet the additional responsibilities that are prescribed in today's environment.

Now, digging into the overall hedging strategy, companies establish risk tolerance to interest rates. This piece of the risk management puzzle effectively governs how much risk a company may want to take with respect to various types of interest rates, fixed or variable.

Now, there are several philosophies in setting these risk levels, ranging from the theoretical to the company's financial position. And the current slide discusses utilizing one of those aspects, a theoretical one utilizing modern portfolio theory to determine a particular mix of fixed versus variable-rate debt in the debt portfolio.

Modern portfolio theory is more commonly utilized, and we hear a bit more in the construction of portfolios to optimize or maximize expected returns based on a particular level of risk on the investment side. But in our case here, as opposed to evaluating returns, we're using the theory to optimize the mix of the debt portfolio with its related interest expense and, of course, its related interest-rate volatility, interest-expense volatility.

So what we've done here is constructed a hypothetical portfolio, portfolios of floating and fixed-rate debt using the Fed Funds target as the variable-rate proxy and the 10-year Treasury as the fixed-rate proxy. And after evaluating the data, the portfolio that actually minimizes volatility happens to be the one that is 70% of the debt being fixed, although I'll stress here that this is one of the theoretical ways to evaluate your debt mix. And we'll want to certainly take into account in our conversations your company's particular situation, which we'll actually dig into here and some of the approaches in looking at your company's current and projected profile and coming up with a mix of debt for you.

The other approach here, too, the company's debt mix and hedging strategies, come from the current anticipated financial position, as I just stated, especially with respect to the financial leverage of the company. Look at the top left here, the company's financial position. Looking at factors such as leverage, the company's EBITDA margins, and cash flow generation ability, your company's ability to be able to cover your interest expense and how tight that may be and how sensitive your company may be to increases in interest rates.

And this could even be broken down further, some of the other inputs that you can see surrounding the illustration there. The company could look at its asset characteristics, short versus long term. And one that we work through with our clients when they're looking at their credit agreements is evaluating their interest-rate risk in conjunction with the covenants that may be prescribed in their credit agreements.

Lastly, I'll highlight on the bottom left there, we look at management philosophy as one of the inputs into the decision here. Working with a lot of private companies, we do find from time to time that management philosophy can be a major contributor to these inputs, in addition to the other, more financial ones that we see here. And I would say that this management philosophy, whether there's an aggressive approach or a conservative one, that the management team may prefer to have things fixed and be able to budget them and forecast them out with consistency that you may find being a big input into this equation.

So we'll move now on forward-looking identification quantifying of exposures on the following slide. Now, what we've done here is we've looked at the anticipated exposure to interest rates on a debt portfolio over a couple of years of a projection horizon. And we've done that, firstly, by looking at with particular movements in interest rates, four different scenarios, how a completely unhedged portfolio would react to movements in interest rates. And you can see the related impact to interest expense at the far right side of that chart.

What we've also done here, just as an example, is to overlay a strategy of being 50% fixed, so having full diversification of your debt portfolio surrounding your rate risk. And you can see in the scenarios that are illustrated here that in the first circumstance, if short-term rates don't move from where they are today, there is a net cost to that strategy. But you can see, even with slight movements over time and that 1% per annum move in interest rates, you can see the — that you start to see the benefit of how a hedge, even at a 50% level, can benefit the company in diversifying the risk to interest rates.

As we'll find on the following page and that I'll elaborate on here, unlike in many facets of businesses, of the risk that your companies take, there are several products, when we do look at the risk to interest rates, that can be utilized to mitigate this risk and manage this risk effectively. There are certainly a variety of risks across, that you run into as companies that maybe aren't able to be hedged or mitigated. And keep in mind that there are these products available to be able to hedge your risk to interest rates and be able to identify them and formulate strategies that will mitigate them and enable you to go and take those educated risks that you do in other aspects of your business.

You'll see on this slide the most common products that we work with our clients and utilize to achieve interest rate risk management objectives. And these include both interest rate swaps and interest rate options. The interest rate swap is chiefly utilized to achieve the objective of modifying the profile of an underlying debt instrument. So most commonly, we find variable-rate borrowers that will utilize the interest rate swap contract to achieved a fixed-rate profile, a greater percentage of a fixed-rate profile than they may otherwise have without the swap overlaying their debt portfolio.

The swap is so commonly used, and we find it as the most likely product to be used with our customer base, because it does provide that fixed-rate profile. So it not only is mitigating increases in variable rates for you, but it's also providing for certainty over a desired period, and no volatility in your cash flows over that time period.

The other products, the interest rate cap and collar, are option-based strategies that don't create a fixed-rate profile for you that may often be desired. But they do provide for a maximum cost of capital on your variable-rate profile. And this maximum cost of capital, this protection, is mostly in exchange for an upfront cash premium on the cap, so very insurance-like in nature, paying that premium upfront and mitigating the risk of rates exceeding a particular level that you want to protect.

And the collar also is achieving a similar protection level for you. But as opposed to an exchange of cash upfront for that premium, you're able to exchange a floor or a minimum interest rate on your debt profile.

Not only are these the most commonly used products to shape your company's exposure to interest rates, but they are able to be fully customized. So that's important to keep in mind when you're working through these solutions, not only with your policy, but with the individual products. So when you are working with your PNC Derivative Products Group partners to gain an understanding of your particular situation, your interest-rate risk management strategy could end up resulting in a complete customization of these products. It could be ranging from the amount that you hedge under a particular contract. So if you have a \$10 million term loan, for example, you don't necessarily have to have the contract be overlaid or wrapped around that entire \$10 million. It could be a percentage of that total.

You're also able to dictate the term of the contract, of the risk management contract here — the swap, the cap, or the collar — which again, could be different than the actual final maturity of your underlying loan. You also can dictate when your hedge may be effective, which we're seeing quite a bit of looks at in the current market environment, especially with all the event risks that we have over the coming weeks — given the election, given a couple of Fed meetings coming up here, and given the economic data that we're seeing over the next couple of months. And so you are able to use the contracts to be effective at a forward date, which could start, for example, on debt that you may be forecasting to occur in the following year, in 2017 or beyond.

Finally, in the last pages of this section, we discuss situations where you may enter into one of the various hedging products to meet your debt mix strategy. And the chief reasons that we find that you would be utilizing these products to adjust your strategy, the first would be a change to your debt portfolio. So as Edwin described, looking and trying to find your most efficient or cheapest source of capital, and then modifying the interest-rate profile to meet your policy's objectives.

The other is more of a market-based scenario, where you may have a view that long-term rates may go up over time, as many currently project. But you may be able to find market opportunities, like the one I described with the Brexit vote earlier on in our conversation here, where you're able to take advantage of that situation to be able to execute your hedge and get your portfolio back in line with your policy.

I'll now flip it back over to Edwin, and he'll conclude the webinar presentation with an additional polling question and also considerations and next steps.

Edwin Martinez:

Thank you very much, Matt. So we'll start off with our last question of the day, if we can proceed to the next slide. And the question is, does your company have an ISDA and related documents in place to execute interest-rate hedges in a timely manner? Your options are yes; no, but I have considered it; or no, have not considered it.

As we wrap up our discussion, we come to concrete steps and action points to enact an effective hedging strategy, and the first step of that is making sure the documentation is in place. That's to give everybody a few more seconds to answer that question.

So let's take a look at the answers, and it looks like more people do have an ISDA in place; 46.4% say that they do have an ISDA in place so that they are able to execute a hedge in a timely manner.

So in closing the discussion, what I wanted to do was to take a look at what your next steps could be. The very first one, of course, is you have to have an objective. You want to prepare your company to be able to execute hedges in a very timely manner. As you know, the market is very, very fluid, and opportunities come and go, usually within a split second. So, one, we want to advise you to make sure you have a comprehensive risk management policy and plan of action. By having an overall strategy and exercising discipline in implementing it, it puts your company in the best position to manage its interest-rate risk.

And the very first step in doing that is placing an ISDA in place or other documents that will enable you to execute a transaction with PNC. Note I said "enabled." It doesn't obligate you to do it, but if you have these documents in place, the rest of the steps are pretty easy.

You want to take care of your Dodd-Frank requirements such as registering for an LDI number and accomplishing all other Dodd-Frank-related requirements.

And finally and most importantly, we want you to make sure that you engage with your PNC Derivative Products Group partner. Please leverage your derivatives partners. Use us as a resource. We can provide useful market information for you. Engage us in a discussion to understand your objectives and needs better. And hopefully, we can assist you in evaluating the risks your business is exposed to and, hopefully, help you formulate and implement a comprehensive risk management strategy.

And with that, that concludes our discussion. I'm going to turn it back over to Jim for some questions and answers.

Jim Bernier:

That's great. Thanks so much, Edwin and Matt, for a great presentation. We'd now like to open up the session for questions. As a reminder, you can ask questions using the Q&A window located on your screen. If you do not see the Q&A window, simply click on the Q&A widget found in the lower center portion of your screen.

Okay, it looks like we have a number of questions that have come through. Let's take the first one for Edwin. Edwin, with Japan and several European countries espousing negative interest rates to stimulate their economies, what are the chances that the Federal Reserve will resort to negative rates as a monetary policy tool?

Edwin Martinez:

Thank you, Jim. It's a very interesting question. In fact, in the Jackson Hole Economic Policy Symposium organized by the Fed last August, there was a presentation by Professor Marvin Goodfriend of Carnegie Mellon University, and he laid out a case for allowing interest rates, specifically in the United States, to go negative if the economic conditions dictate that they should.

It is important to note that the only reason why you would want to go negative is if the economy is not doing so well, if there is a threat of deflation, and if unemployment is pretty high. So in the same symposium, somebody asked Professor Goodfriend, "Do you think that now is a good time to do that, knowing that everybody else is doing it?" And Professor Goodfriend's response was very clear. He said, "Even though I advocate for the possibility of negative interest rates, I don't think the U.S. economy as it stands now necessitates the use of negative interest rates." We have seen this economy grow with positive growth rates in the last 26 consecutive quarters. The unemployment rate has already gone down below the Fed's stated threshold. And even though inflation is not quite at 2% yet, the trend looks like it is headed there. So I guess the answer to that question is I don't think that is a possibility at this point in time, nor is it in the foreseeable future.

Jim Bernier:

Great. Thanks, Edwin. Next question looks like it might be for Matt. Matt, when discussing putting in place an interest-rate risk policy, and particularly the mix of fixed- versus variable-rate debt, you mentioned management philosophy as one of the components. How would I assess my philosophy?

Matt Gelles:

Thanks for the question here, Jim. And so looking at that, there are several approaches you could take here to assess what your particular philosophy may be. And one may be how you assess managing risk across other inputs and outputs of your business.

So, for example, do you prefer, with some of your other inputs costs, for example, do you prefer them to be fixed or locked in for a considerable time period, or do you prefer them to be variable over time and don't really mind that they may be variable in nature?

Also, you may want to consider the contrast that you have with the other inputs in your business. So if you have many other inputs that are variable in nature, and they possess some risk to you, you may contrast that with your financial decisions and in particular your risk to interest rates by utilizing some of the products that we described during the presentation. So you can have more certainty surrounding your costs related to your financings, those input costs, and then continue to have the variability in other inputs that you may be more comfortable with managing.

Jim Bernier:

That's great. Thanks, Matt. I guess I'll direct this next one to Edwin. Edwin, is there any truth that the Federal Reserve does not move prior to a Presidential election so as not to influence the outcome?

Edwin Martinez:

Thank you, Jim. That's a very interesting question. We sort of touched on that during the body of the presentation. But what I wanted to do was to take a look more specifically at the period immediately before an election. So if we look at the two months prior to an election, there actually have been some instances where the Fed has moved. The caveat here is, again, as we said, it was only in 1979 that Fed Chairman Paul Volcker actively managed the economy with aggressive monetary policy.

And with that, I look at a few years where the Fed has actually moved. In 1980, the Fed Fund started to get moved from 12% to 13.75%. On October 2 — that's about a month before the election — the same thing happened in '84. The Fed Funds target moved from 11.75% to 10%, again, coincidentally, on October 2 of that year. In 2004, it moved from 1.50% to 1.75% on September 1 of that year. And in 2008, it moved from 1.50% to 1% on October 29.

So a few things there. The years 1980 and '84 are unique because it was Paul Volcker doing it, and it was pretty aggressive because it was the first time they're doing it. And in 2008, that was another unique situation, where we were in the midst of a financial crisis that made the deepest recession we've seen since the Great Depression.

One parting shot. One thing that I want to point out is that most people think the Fed only exerts its independence when they're moving rates. But the one thing I wanted to state was by not moving, that is also a policy that the Fed is espousing. So either way, I think if you look at the data, one, the Fed will move if they think it is necessary to do it; and two, whatever policy they enact is a manifestation of their independence from the political process.

Jim Bernier:

Great. Thanks, Edwin. I think we have time, maybe, for just one more question, and I'll direct that to Matt. When you discuss the difference between the market's expectations and the Fed's [inaudible] for short-term rates — during the presentation it highlighted the disparity between the two — what curve does PNC think is correct?

Matt Gelles:

To the good old crystal ball question here. So leveraging the presentation a bit here, one of our key messages was that we want our customers and companies we work with to be prepared for any of the various interest-rate market environments that we may see. So certainly, one that may look like the passive, the Fed is forecasting, and certainly, even the one that the market is currently forecasting as well. So having that policy in place to diversify your risk and make sure that your risk tolerance is in a good way, that, we think, is more important than the actual curve that we end up following here.

I will say from PNC's perspective, citing our economics team, we do end up falling somewhat between the two curves that were described during the presentation. So we're right in the middle between where the Fed's dot chart their median projection state and then on the other end, the market's projection. So I think I elaborated earlier on that we do expect a hike in December. And then we're calling for — PNC's Economics Team is calling for two hikes in 2017, and that would be followed by three in 2018.

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And once again, I'll highlight that that's based on PNC's economic forecast, that to drive those levels of interest rates over time as we also evaluated to the presentation.

Jim Bernier:

Great. Thanks, Matt. Well, I think we're just about out of time, but we'd like to thank Edwin and Matt for a great presentation today. You both provided really great insights and perspective, and we thank you for the presentation.

And, of course, we'd also like to thank everybody for attending the webinar as well. I'd like to remind people also that a PDF of today's presentation, as well as a CTP certification credit, is now available for you to download from the green Resource List folder widget in the lower center portion of your screen. You'll also see a link to a short survey on your screen. Again, your feedback is important to us, and we greatly appreciate your thoughts on today's session and presenters.

This concludes our presentation today. Thank you very much.

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