Derivatives and Hedging: Topic 815

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Abstract

Derivatives have been around for thousands of years. They are the instruments that are attributed to trade development around the world. What was initiated as a promise in trade to payback, has evolved into global trade with exclusive contracts that are enforceable in a court of law. Derivatives have emerged as an investing tool in the financial world even more aggressively the past 25 years. The banks and bankers are seen as the fundamental players of derivatives and hedging. While derivatives have some positive aspects to them, they get a lot of negative feedback due to their risky nature. The impact of the financial crisis in 2008 was felt around the world and derivatives were at the center of it. One consensus reached across all involved parties was that in order to avoid what could be a very impactful crash in the future of the financial world, there is a need for stricter and internationally imposed regulations. Too many regulations inhibit the financial environment and hinder its ability to expand. On the other hand, loose regulations are left up for interpretation and have been abused in the past for financial gain while the actions taken as a result have impact the economy of the world. It is essential to find the right balance of regulations where financial institutions are held responsible for their actions but also allow the ability to participate freely in trade as this is essential for business continuity, growth, and expansions. One way to achieve this, is to have an established benchmark rate for trading across the world and that has been a challenge which has been argued back and forth for quite some time. Derivatives and hedging attempt to balance the risk involved with investments that are not regulated by the SEC. The return on investments is usually large as is the risk involved with them. The LIBOR has gotten a lot of attention in regards to being the optimal benchmark rate or not this past decade. This research paper, through the support of current literature and information collected from surveys supports the options for the optimal benchmark rate for hedge accounting purposes. From the responses collected from the survey and findings in current literature and publications there is evidence that there should be more than 2 benchmark rates used in derivatives and hedging. Interest rates should always be disclosed in financial statement and changes in rates should also indicate how they impact prior financial reports.

Keywords: Derivatives, Hedging, Benchmark Rates.

Introduction

Topic 815 on Derivatives and Hedging provides guidance in regard to risks associated with investing, risk expected, and risk that should be avoided. There is always going to be risk involved with investing. Assets and liabilities do carry that inherent risk when they are exposed with the changing in designated benchmark rate. Hedging utilizes benchmark rates as a way to minimize the risk associated with trading. Up to 2013, the most used rates were also set as the default benchmark ones (FASB, 2013). In the recent years, the topic of establishing the right rate to fairly represent hedging, has been up for discussion and regulation (Abad, Aldasoro, Aymanns, D'Erico, Rousova, Hoffmann, Lagnfield, Neychev, & Roukny, 2016).
Established benchmark rates have gone up from only two in 2013 to five in 2018 (FASB, 2018). The FASB has had to introduce new rates in the market place. The justification of usage as selecting the rates as the default benchmark ones was perceived as risky and not fair. The financial crisis of 2008 shed some light into the flawed process and selection of these rates. For decades derivatives have been perceived as risky in nature and investors have been acceptable of it to a certain degree. Today derivatives have as much as $10 trillion involved in trade (Jermann & Yue, 2013) and that is a significant number which needs more attention than the gambling attitude associated with derivatives and hedging. One way of minimizing the risk associated with derivatives and hedging has been the diversification of benchmark rates currently used. These rates impact investment at an international level, their standards, fluctuations in currency, and fluctuations in the market place in general considering hedging is not regulated by the SEC.

Purpose of the Study

Investing at any level has an impact on the local and even global economies. High risk investments bring in a higher than average return on them and sometimes the opposite can happen, where all the investments are lost. Derivatives can have significant loss even with the slightest move. Derivatives and hedging have attempted to offer stability to their investors especially after the 2008 market crash. One way to do so is by establishing a set of universal standards that act as an umbrella for investing across all venues especially considering the volume and heterogeneity of derivatives. A benchmark rate can offer stability to high volatile markets as a protective measure. The purpose of this research study is to establish some consensus on what the benchmark rate should be and who should be deciding on establishing a benchmark rate.

Research Questions

Investing is essential for business continuity. Too many regulations have hindered the ability for investors to freely trade. On the other hand, lack of regulations has created environments where investors have been taken advantage of. Hedging has always been laxer in regards to regulations and government agencies guide it, but do not regulate it. This has attracted a lot of investors in the past. Derivatives and hedging is however perceived as a manipulative form of investing where the rich use the guidelines to better fit their own goals. Researchers have attempted to shed some light on the issue. The research questions in this study will be answered by a collection of literature review that is used to support what currently exists in regards to benchmark rates for derivatives and hedging, while primary research will be collected from surveys to support any evidence in regards to the topic of benchmark rates for derivatives and hedging.

Q. 1 What is the optimal way to choose a benchmark rate as it relates to derivates and hedging?
Q. 2 Who should be involved in the process of choosing the right benchmark rate for derivates and hedging?

Literature Review

Derivatives are the contracts and explanations which are used between parties that buy and sell a certain asset. Hedging is an investment taken out to protect the risk of another investment. A stated interest rate in a financial assets or liability contains two components: one is the interest rate and the other is the credit spread (FASB, 2013). One of the bigger risks that investments are faced with in the global market place is the fluctuation of interest rates. The United States currently recognizes the following as the eligible benchmark interest rates: Treasury Obligations of the U.S. Government (UST), the London Interbank Offered Rate (LIBOR) Swap Rate, the Overnight Index Swap (OIS) rate based on the Fed Funds Effective rate, and the Securities Industry and Financial Market Association (SIFMA) municipal Swap Rate.

A History of Derivatives

Derivatives can be traced back many years. People have been bartering goods for the last 100,000 years ago (Mathers, 2013). Derivatives have played an essential role in the creation of international trade. The turn of the 17th century saw an expansion of trade not just between countries but also continents. Circumstantial evidence points out that bank and bankers were at the forefront of derivative trading from the starts of the 18th century moving forward (Webber, 2008). The last 25 years, derivatives have taken on a significant role in the world of finance (Hull, 2006). The new use of derivatives shifted focus due to an increase of volatility in the financial markets. This created a demand for hedging of financial instruments used to manage risks involved with derivatives. It is speculated that derivatives emerged as soon as humans were able to make a credible promise in the exchange of a good. Today, derivatives are far more exclusive and do not just rely on verbal agreements.
Derivatives are challenging to research. They fall under the category of economics, finance, and even that of the history of civilization considering their use over a long span of time.

There are very limited resources to document the historic use of derivates. Even academically, there is not enough research done on the topic which creates the opportunity for researchers to add on the topic while simultaneously posing the challenge of having to provide evidence on its existence. Modern researchers have had to rely on court documents, and even rules and regulations as they relate to trade in order to make a connection and prove the existence of derivatives (Webber, 2008).

While the concept of derivatives can be traced back to thousands of years, the term itself has not emerged until the 1980s. Evidence has been provided by a federal court case, American Stock Exchange vs. Commodity Futures Trading Commission (Swan, 2000). The emerged definition of derivatives today is that it is recognized as a financial instrument whose value is derived from the underlying value of an assets or a liability. Today researchers have claimed that the value of a derivative will depend on any variable (Hull, 2006).

Benefits of Derivatives

Derivatives are financial contracts and agreements which derive their value by an underlying value. Derivatives are seen as very important in the world of trading and financing (McNally, 2009). They are perceived as a risk management tool. Derivatives help minimize risk in three areas as it relates to financing: credit risk, liquidity risk and market risk (Bingham & Kiesel, 2013). Credit risk arises due to financial hardship of parties involved and the ability to pay what their obligation is. Liquidity risk can arise from various reasons and scenarios that might be beyond the control of a company, but they restrict the cash flow of that party. And the last one is market risk. Market risk can arise from fluctuations in currency, interest rates, or even the political situations of a country. One wide use of derivatives from banks is done to hedge any risk that may affect their operations and earnings. In addition, derivatives help minimize the risk associated with trading and is used in various industries even though the most conceptualized use is that of banks (Webber, 2008).

The underlying variable of derivatives can vary from assets all the way to information retrieved from an investing entity. The importance of information as it relates to derivatives has taken on a new form considering the flow of information due to technology and the involvement in global trade between countries and companies (Clapp, 2014). The two most regarded benefits of derivatives are price discovery and risk management, while information is as the center of both these benefits. A board range of price discovery as it relates to the financial world depends on interest rates, supply and demand, sustainability, political positions of certain countries, rules and regulations, and even ethical norms of that country. Anticipating what the situation might be like in a particular country or with a specific investments can give an advantage in price discovery (Chernenko & Faulkender, 2011).

Risk management is perceived as the most important benefit of derivatives. This process does a preliminary evaluation of minimizing risk. Traditionally hedging is seen as the tool to minimize risk (Webber, 2008). Hedging holds a strategy in place for the way the market might position while speculation strategies help steer away from risk by exploring the way the market will go (Chernenko & Faulkender, 2011). In addition, derivatives help with transaction costs by minimizing them. Derivatives are seen as insurance on an investment, hence having a high price on them makes traders reevaluate their choices, but keeping the price low, attracts more investors. Lastly, derivatives create market efficiency. Derivatives reflect the prices in the marketplace; they are perceived as instruments that track overall market performance.

Drawbacks of Derivatives

Derivatives get a lot of negative feedback. For one, they are not regulated by the SEC and this tends to associate a bad image with them. Warren Buffet referred to derivatives as the financial weapons of mass destruction (Palaniappan, 2017). Derivatives can be unpredictable even though there have been many attempts to manage risk. They can attribute total losses even with the slightest moves and this makes derivatives not being sought by many (McNally, 2009). Derivatives are perceived by many as a form of legalized gambling. In addition, when an investor loses money, hence it failed investors to achieve their goal, it is the derivative which is blamed for and not everything that might have enabled it to fail. Derivatives are perceived as instruments that should be used by professional traders and investors considering the vitality of their nature (Schroff, 2017). In addition, they have a short life span and are not perceived as long-term financial investments. There is a lot of knowledge and experience in order to be successful with derivatives.
Treasury Obligations of the US Government (UST)

The Department of the United States Treasury has been established since 1789 by Act of Congress (History, 2009). The sole mission of it has been to manage Treasury revenues.

The Treasury Obligations are perceived as reliable rates in times of financial insecurity (Eisenberg, 2015). Hence, the United States Treasury (UST) rate is perceived as a risk-free benchmark rate (FASB, 2013). As of 2013, the only benchmark rates in the US were considered to be the UST and The London Interbank Offered Rate (LIBOR). The UST was decided as the ultimate interest rate with risk free measures (FASB, 2000). The FASB however has considered defining benchmark interest rate risk based on U.S. Treasury rates (UST) in the U.S., which sets it aside as a rate that is only used in the US and not other countries. However, considering the wide use of the LIBOR in the US, the FASB decided to consider it as a benchmark rate as well. The FASB recognizes that using one interest rate as the benchmark for hedge accounting might not be optimal and inhibits supply and demand which also affect the rate usage directly. The other reasoning behind it is that LIBOR was considered as an inherently liquid and stable rate by the financial markets (Duffie & Stein, 2015).

The London Interbank Offered Rate (LIBOR)

The London Interbank Offered Rate (LIBOR) is highly regarded even though its introduction is more recent in the marketplace than that of the UST (Duffie & Stein, 2015). It was introduced in the marketplace in 1984 when British bankers decided to establish a rate they would charge to other banks for a loan (Webber, 2008). The first use of the LIBOR was seen in the marketplace in 1986 (Webber, 2008). LIBOR is used widely in international trade and is regarded as the ultimate indicator of market stability. In addition, the LIBOR is considered as an eligible benchmark rate (FASB, 2018b). There have been concerns in regards to the rate and its sustainability following the market crash of 2008 (Duffie & Stein, 2015). The UST and LIBOR had always been within 5 points of each other which made them very reliable, yet the 2008 showcased points between the rates that varied significantly (FASB, 2013). As of October 2018, the FASB has issued an accounting standards update which impacts the usage of LIBOR rate (FASB, 2018a). A committee convened by the Federal Reserve Board and the Federal Reserve Bank of New York identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative reference rate (FASB, 2018a). Companies have been allowed to adapt the new rate since early in 2018 and the latest adaption of the new accounting standards is until December 2019 (FASB, 2018a).

The Overnight Index Swap Rate (OIS)

The Overnight Index Swap Rate (OIS) is an interest rate swap which involves the overnight rate being exchanged for a fixed interest rate. In a transaction of OIS exchange, only interest rates are the ones being swapped. The FASB has been considering, since 2017, either they should consider the OIS rate as the benchmark rate for fair value hedges (FASB, 2018c). The FASB committee decided to add the benchmark rate only to the OIS rate based on Secured Overnight Financing Rate (SOFR) rather than adding a broader swap rate. The new amendments would be applied on a perspective basis for all new and existing hedging relationships. This transition might have an impact on LIBOR and there might be an identified need for considering changes to GAAP as guided by the transition from LIBOR to SOFR (FASB, 2018c).

Inclusion of the Fed Funds Effective Swap Rate

The 2008 market crash shed light into the necessity of hedging the Fed Funds rate (FASB, 2013). There is a newly identified need by the increased focus on banks and their source of funding, hence resulting in regulatory measures to control risks such as collateralization of derivatives (Fujii & Takahashi, 2013). The issue has been the justification of the Fed Funds Effective Swap Rate as the benchmark rates for hedge accounting purposes and how it would be a better replacement than the LIBOR and UST (Duffie & Stein, 2015). Impacted by these changes will be all entities which choose to apply hedge accounting of the benchmark interest rates. The addition of the new swap rate is done to minimize the risk associated with hedging as the emphasis on the risk should not be just on rate as a number but rather as an identifiable component of a financially instruments which is used to measure in a reliable manner. As a result, as of 2013, the Fed Funds Effective swap rate is considered a benchmark rate for derivates and hedging (FASB, 2013).

The Securities Industry and Financial Market Association Municipal Swap Rate (SIFMA)

In February of 2018, the FASB issued proposed accounting updates which would expand the list of benchmark rates used for hedge accounting in the US (FASBd, 2018).
A robust market needs a fair representation of swap rates and the UST and LIBOR were no longer fitting that purpose; which many saw as the reason for the financial collapse of 2008 (Duffie & Stein, 2015). Adding the Securities Industry and Financial Market Association (SIFMA) to the benchmark rates would add convenience to hedge accounting.

Furthermore, the SIFMA would be able to provide a fixed rate which would result in the swap “having a zero fair value at inception because the present value of fixed cash flows, based on that rate, equates to the present value of the variable cash flows” (FASB, 2018d, p.4). As of 2018, SIFMA is a new benchmark rate which can be used for hedge accounting.

**Targeted Improvements for Accounting for Hedging Activities**

Topic 815 provides guidance in regards to risks associated with assets and liabilities that can be hedged (FASB, 2018d). The derivatives are the exclusive contracts which specify the details of hedged investments. As mentioned above, initially in the US, the only two accepted benchmark rates were the UST and LIBOR (FASB, 2018a). The FASB issued the accounting standards updated for Derivatives and Hedging topic 815. The updates introduced new benchmark rates as they relate to hedge accounting. The FASB board justified the new rate inclusions based on feedback from the Financial Stability Board (FSB) and the Financial Stability Oversight Council which indicated a decline in loans distributed by banks (FASB, 2018d). This posed direct risks to unsecured benchmarks rates used in interbank offers. In addition, the US dollar LIBOR was used to extensive volumes ranging in financial products and contracts which would inherently increase the risk of financial stability for the US market (FASB, 2018b). These events initiated the creation and adoption of more benchmark rates as alternatives to the existing ones. The FASB committee agreed that the new rates would serve similar as the other rates. The purpose of the new rates is to dilute risk associated with derivatives and hedging and increase the duration of derivatives in order to create liquidity in contracts (FASB, 2018b), so essentially increase the amount of loans issued by banks. Ultimately, the FASB board recognizes the market might require new and updated benchmark rates as it moves forward and does not limit the ability to revisit the topic and update accordingly. A new benchmark rate can be applied only on perspective bases on new or any redesigned hedging relationships initiated on or after the adaption date (FASB, 2018a).

**LIBOR Scandal**

While LIBOR was considered to be one of the most influential rates in inter-bank lending, it was also found to have been involved in a financial scandal which unfolded over several years. There is evidence that as early as 2005 the rates had been manipulated at the request of its derivative traders (FSA, 2012). Evidence found there had been 257 requests to fix the LIBOR rates by Barclay. It was not until 2007 that Barclay notified the US regulators of submitting dishonestly low rates. The timeline of the scandal continued until 2012 when Britain’s FSA delivered a 10-point plan to overhaul LIBOR. Manipulation of LIBOR, while sounding complex, was easy to achieve. The LIBOR rate used to be calculated for five currencies (McBride, 2016). The LIBOR rate is calculated by collecting an estimation of borrowings costs each day. The calculating agent disregarded the highest and lowest 25 points and treats them like outliers while averaging the rest of the rates. The maturity levels vary from overnight to one year in length (McBride, 2016). After that, the level for each currency is set by a separate collection of bank panelist. The bankers would manipulate the rates to make bigger profits and would often coordinate with other institutions, so they may agree on the same rate on a given day. LIBOR, the most highly regarded and influential benchmark rate, lost its exclusivity in the midst of greed and scandal (Brousseau, Chailloux, & Durre, 2013).

**Structural Risk for Unsecured Benchmark Based on Interbank Offer**

Interest rates play a key role in the financial world. Establishing benchmark rates increases risk free investments and minimization of manipulation of these rates (FSB, 2018). The FSB, in light of scandals and manipulations of LIBOR, recommended the reform of major benchmark interest rates. Suggesting risk free rates has been a joint effort of public and private working groups (Brousseau, Chailloux, & Durre, 2013). However, the rates need to be reflective of the industry and nature of business. One type of rate cannot be used across all business entities that need to borrow money. Businesses that want to switch to a new rate, need to have a supporting system of transitioning from one to another, otherwise the new rates might cause more problems than solve them. The FSB suggests full disclosure to the new rates and the impact it will have on businesses. Furthermore, accounting preparers need to take into consideration the changes that will be impacted as they need to hedge accounting strategies and documentation in advance (FASB, 2018a). The updates only apply to newly designed hedging relationships. The FSAB does recognize that previous hedging relationships might benefit from the new rates and will consider introducing provisory reliefs for them as well.
The Purpose of Interest Rate Swaps

Interest rate swaps are used as a way to minimize investing risk. The parties that are involved in a swap usually exchange fixed and floating coupon payments. These create interest rate swap derivative contracts.

While there is evidence that these swaps gained popularity around the 1980’s, today they are the most popular derivative contracts which amount to 10 trillion dollars (Jermann & Yue, 2013). Considering the high volume of money connected with derivatives and the impact they could have in case the market crashed, regulators have had to turn their attention to what has been perceived as a not so regulated area of investing. The derivatives market used to be considered as one of the opaquest financial markets in the world (Abad et al., 2016). Due to the changes that the FASB has implemented, it is becoming one of the more transparent ones to regulators. One thing that adds to the complexity of derivatives is the volume and heterogeneity of the transactions involved with it.

Research Method

A survey was designed in Survey Monkey in an attempt to solicit information from participants on the topic of derivatives and hedging and benchmark rates. The survey was sent to potential participants via email. The invitation was sent to 48 participants and during a period of 24 days, 19 participants responded. The selection of participants was drawn from convenience of individuals who would respond. In addition, the selection of participants was careful to consider participants with at least a bachelors degree as the level of knowledge required to participate on this survey was specific in the field of accounting. The participants were notified that participation is voluntary, they needed to be at least 18 years of age to participate, and the responses collected were going to be used for educational purposes only. The survey was designed to be responded in one round which offered convenience for the participants. Any questions that made them feel uncomfortable or were not sure about, the participants could have skipped. The survey consisted of a total of seven questions. Below are the questions that were asked in the survey along with the summary of the responses retrieved from the participants.

Q.1: Had you heard of financial derivatives as defined above before this survey?
19 participants responded to this question; 9 had heard of financial derivatives prior to this survey and 10 had not heard of financial derivatives prior to this survey.

Q. 2: Had you heard of financial hedging as defined above before this survey?
19 participants responded to this question; 9 had heard of financial hedging prior to this survey and 10 had not heard of financial derivatives prior to this survey.

Q.3: Interest rates are used to measure the value of assets and liabilities that are permitted to be hedged. Debate has surrounded which interest rate to use. In the United States (US), the interest rates used are those associated with US Treasury obligations (such as bonds), the London Interbank Offered Rate (also called the LIBOR rate), swap rate, Overnight Index Swap (also known as the OIS) rate, and the Securities Industry and Financial Markets Association (also known as the SIFMA) rate.
19 participants responded to this question. 16 participants indicated they had heard of these interest rate types, while 3 indicated they had never heard of these interest rate types.

Q.4: Which rate should be used as the benchmark for the interest rate?
19 participants responded to this question. 3 responded that LIBOR should be the used as the benchmark rate, 2 selected the UST, 1 selected the OIS, 0 selected SIFMA, 3 selected the option to use neither of the listed rates, and 10 selected the option to use all of the above listed rates.

Q. 5: The US has an Alternative Reference Rates Committee (ARRC). The ARRC suggested that the LIBOR be replaced with the US calculated Secured Overnight Financing Rate (SOFR). Given the controversy over the stability of the LIBOR, do you think or feel the SOFR should replace it as a choice?
Out of 19 participants, 18 answered this question and 1 skipped it. 9 responded yes and 9 responded no.

Q.6: Should the interest rates used be disclosed in the financial statement?
19 participants responded to this question. 18 of the participants responded yes and 1 responded no.

Q.7: If interest rate choices change, then should this only impact current and future financial reports?
19 participants responded to this question. 10 on the participants responded yes and 9 responded no, and that it should also disclose how the change impacts prior financial report.
Findings

The survey results suggested that only 50% of the participants had heard before this survey about derivatives and hedging. This is a topic which is related to finance and investment and would require experience in the field in order to have known about them. However, interest rates appeared to have been heard by 16 out of 19 participants. The question on which rate should be used as a benchmark for derivatives and hedging, majority of the respondents indicated that all of them should; giving options and flexibility in the marketplace. Replacing the LIBOR with the SOFR got equal responses where 9 responded yes and 8 responded no.

However, majority of the respondents believe that interest rates should be disclosed in financial statements and highlight the impact the new rates could have had on prior financial reports. The purpose of this study was to respond to overarching questions that of the best way to choose a benchmark rate and the second was on the involvement of electing the benchmark rates. Combining the literature review used in this project, the responses from the survey, and the comment letters on topic 815, below is a summary of the research questions.

Q. 1 What is the optimal way to choose a benchmark rate as it relates to derivatives and hedging?

The best way to choose a benchmark rate as it relates to derivatives and hedging is by involving private and public entities to consider the impact that these rates have on the industry. The input and insight from various entities could help make a better decision rather than just basing the decision on one rate as it has been prior. In the past it has been argued that the most used rate should be the benchmark rate by default. That type of selection creates an unfair advantage to what could be useful rates. A new rate does not stand a chance considering the popularity and use of an established one. In addition, evidence from research showed the manipulation of the rate as a result of not having other rates to be used.

Q. 2 Who should be involved in the process of choosing the right benchmark rate for derivatives and hedging?

The benchmark rates are used from various banks around the world; they are very broad in industry. Derivatives and hedging are considered the most heterogeneous investments in the world and while the financial world attempts to create stability in its front, there are a lot of nuances that do not level out just because of a rate such as practices in various countries, ethics, laws, and even investing potential. Choosing the right benchmark rate should involve participants from various backgrounds in the industry. The fair representation should be given on the basis of volume by trading and investing, but also to the industries that get impacted the most.

Recommendations and Conclusions

The research questions attempted to answer who should be involved in the selection of benchmark rates as well as what the process for electing them should be. The use of literature review, the survey collection, as well as the comment letters on topic 815 provided some insight on the benchmark rates. Prior to 2013 the benchmark rates could easily be compared to a monopoly. Most of the market used LIBOR while there was a limited use from the US Treasury on bonds. The comment letters were from some of the biggest names in the financial industry such as Capital One, Chase, etc. There was a major agreement on the changes implemented by the FASB besides a few that believed more time should be given to the rates in the market place before deciding if they are the optimal choice to be used as benchmark ones. This goes back to the old way that the benchmark rates were decided, which was by usage. It is clear that the FASB does not see that as an effective way which minimizes risk, hence the diversification of the rates has already taken place.

In addition, research shows that the benchmark rate should not be allowed to be manipulated by the ones that created it for their own financial gain. The LIBOR was manipulated for nearly a decade. Derivatives and hedging are a complex issue and the nature of their investing leaves little room for regulating as it is seen as inhibiting the ability to trade. Hedging in general is perceived as highly risky and the returns can be very lucrative or damaging. Hedging in a global scale can have detrimental impact on the global economy. The financial market crash of 2008 shed light into the vulnerability of what was considered the most impactful benchmark rate in the financial industry around the world. Looking closer at LIBOR, it revealed that the way the rate was established and used posed a lot of risk for investors and there needed to be alternatives to take into consideration. The new rates will work side by side with the existing ones with the hopes of offering more options and minimizing investing risk, however, various boards such as the FASB and the FSB recognize the need to constantly revisit and revise these rates in an attempt to better serve investors around the world.
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Appendix A

Questions for Respondents

**Question 1:** The Board decided to propose that the OIS rate based on SOFR should be added as a U.S. benchmark interest rate. Should the OIS rate based on SOFR be included as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815? Why or why not?

**Question 2:** The Board’s proposal to add the OIS rate based on SOFR, rather than a broader SOFR swap rate that would be the equivalent of the LIBOR swap rate, is based on the ARRC’s paced transition plan, which indicates that OIS swaps referencing SOFR are expected to begin trading in 2018. Over a longer term horizon, swaps referencing a SOFR term rate (that is, tenors greater than overnight) may be developed in the marketplace. Should a broader SOFR swap rate be included as a U.S. benchmark interest rate instead of the OIS rate based on SOFR?

**Question 3:** For hedging relationships of benchmark interest rate risk for which the designated hedged risk will be changes in fair values or cash flows attributable to changes in the OIS rate based on SOFR, should the Board consider providing any transition relief upon designation of SOFR as a benchmark rate? If so, please describe the specific types of relief needed and whether relief is necessary for existing hedging relationships based on LIBOR that will transition to SOFR or newly designated hedging relationships based on SOFR.

**Question 4:** Should additional disclosures be required? If yes, please explain what specific additional disclosures should be required and why.

**Question 5:** Should the proposed amendments be applied on a prospective basis only for qualifying new or redesignated hedging relationships? If not, please explain why.

**Question 6:** Should the effective date of the proposed amendments coincide with the effective date of Update 2017-12? If not, when should the proposed amendments be effective? Please explain why?

Appendix B

Comment Letter Agreement/ Disagreement

**Comment Letters**

\[ = AGREEMENT \] \[ = DISAGREEMENT \]

| Name                        | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 |
|-----------------------------|----|----|----|----|----|----|
| CALPA/ APAS COMMITTEE       | 0  | 0  | 0  | 0  | 0  | 0  |
| PRICEWATERHOUSECOOPERS LLP | 0  | 0  | 0  | 0  | 0  | 0  |
| CATHAM FINANCIAL            | 0  | 0  | 1  | 0  | 0  | 0  |
| FEDERAL HOME LOAN BANKS     | 0  | 0  | 0  | 1  | 0  | 0  |
| KPMG LLP                    | 0  | 0  | 1  | 1  | 0  | 1  |
| DEUTSCHE BANK AG            | 0  | 0  | 0  | 0  | 0  | 0  |
| AMERICAN BANKERS ASSOCIATION| 0  | 0  | 0  | 0  | 0  | 0  |
| MORGAN STANLEY              | 0  | 1  | 0  | 0  | 0  | 0  |
| ISDA/NAAC                   | 1  | 0  | 1  | 0  | 1  | 0  |
| GRANT THORNTON LLP          | 0  | 1  | 1  | 1  | 0  | 0  |
| NYSSCPA                     | 1  | 1  | 1  | 1  | 1  | 1  |
| GENERAL MOTORS COMPANY      | 0  | 0  | 0  | 0  | 0  | 0  |
| CITIGROUP                   | 0  | 0  | 0  | 0  | 0  | 0  |
| GOLDMAN SACHS               | 0  | 0  | 0  | 0  | 0  | 0  |
Appendix C

Selected Quotes from the Comment Letters

Catham Financial “No, we do not believe that additional disclosures are necessary to reflect the addition of adding SOFR as a U.S. benchmark interest rate.”

KPMG LLP “We are not aware of circumstances that suggest that the Board should provide transition relief for existing hedging relationships. However, it is unclear whether market developments in the future will affect benchmark interest rates, including the sustainability of LIBOR as a benchmark rate. If a future event takes place that makes it likely that entities need to make large-scale changes to hedge relationships within a relatively short period of time (as opposed to gradually over time), we believe the Board should consider at that time whether it is necessary to provide transition relief for existing hedging relationships.”

ISDA/NACC “While the FASB has acknowledged this expected timeline in BC17, the Committee encourages the Board to reduce any uncertainty now by adding the broad-based SOFR swap rate. Adding a broad-based SOFR swap rate would reduce any market uncertainty about the potential need for future standard setting and the administrative burden of the Board having to perform standard setting in the future.”

NYSSCPA “We acknowledge FASB’s desire to be proactive on this issue, however, we believe FASB’s efforts are premature. In our November 21, 2016 comment letter response to a previous FASB proposal on accounting for hedging activities, we stated that: “Each interest rate should already be widely used before being included among accepted benchmark interest rates.” We continue to maintain that position.”

BDO “…since the proposal indicates that OIS based on SOFR may eventually replace LIBOR both for the cash flows and the discount rates used in assessing the effectiveness of LIBOR-based hedging relationships, we request that the Board also clarify whether and why the current benchmark Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) is expected to continue to meet the definition of a benchmark interest rate. This question arises because one reason for adding the Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) as a benchmark rate was due to its use in practice for valuating collateralized derivatives, even those based on LIBOR, and also in determining the interest rates of certain individual financial instruments e.g., in lieu of LIBOR.2 However, if the OIS (or a longer term rate) based on SOFR is expected to be used for the same purposes, it raises the question as to whether the Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) would continue to meet the definition of a benchmark rate.”

Appendix D

Email to Survey Participants

Please complete the following survey for my Master's degree. No personal data (e.g., IP address) will be collected. I will not know if you complete the survey. If you do, then I will not know your specific answers to the questions. If you decide to not complete the survey after you have started it, just close the browser. All of the questions are optional. You can answer only the questions that you want to answer.

I would very much appreciate you answering all of the questions to help me be successful in finishing my Master's degree.
https://www.surveymonkey.com/r/GMW9W2C

Thank you,
Marietta Poshi
Appendix E

Survey Monkey Results

**Q1**

Had you heard of financial derivatives as defined above before this survey?

- **Yes**: 47.77%
- **No**: 52.23%

**Q2**

Had you heard of financial hedging as defined above before this survey?

- **Yes**: 47.77%
- **No**: 52.23%
Q3
Interest rates are used to measure the value of assets and liabilities that are permitted to be hedged. Debate has surrounded which interest rate to use. In the United States (US), the interest rates used are those associated with US Treasury obligations (such as bonds), the London Interbank Offered Rate (also called the LIBOR rate), swap rate, Overnight Index Swap (also known as the OIS) rate, and the Securities Industry and Financial Markets Association (also known as the SIFMA) rate.

Answered: 19  Skipped: 0

| Answer Choices | Responses |
|----------------|-----------|
| I have heard of one or more of these interest rate types. | 64.2% (16) |
| I have never heard of any of these interest rate types. | 15.7% (3) |
| Total | 19 |

Q4
Which rate should be used as the benchmark for the interest rate?

Answered: 19  Skipped: 0

| Answer Choices | Responses |
|----------------|-----------|
| LIBOR | 15.7% (3) |
| US Treasury obligations rate | 10.5% (2) |
| OIS rate | 5.3% (1) |
| SIFMA rate | 0.00% (0) |
| None of the above a new interest rate should be created | 15.7% (3) |
| All of the above should continue to available as choices of interest rate to use | 52.6% (10) |
| Total | 19 |
Q6
The US has an Alternative Reference Rates Committee (ARRC). The ARRC suggested that the LIBOR be replaced with the US calculated Secured Overnight Financing Rate (SOFR). Given the controversy over the stability of the LIBOR, do you think or feel the SOFR should replace it as a choice?

Answered: 18  Skipped: 1

Yes

No

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

| ANSWER CHOICES | RESPONSES |
|----------------|-----------|
| Yes            | 50.00%    | 9         |
| No             | 50.00%    | 9         |
| TOTAL          |           | 18        |

Q6
Should the interest rates used be disclosed in the financial statements?

Answered: 19  Skipped: 0

Yes

No

| (NO LABEL) | (NO LABEL) | TOTAL |
|------------|------------|-------|
| Yes        | 100.00%    | 18    |
| No         | 100.00%    | 2     |
Q7

If interest rate choices change, then should this only impact current and future financial reports?

| Answer | Responses |
|--------|-----------|
| Yes    | 52.63%    |
| No, it should also disclose how the change impacts prior financial reports | 47.37% |

Total: 19