# QUANTITATIVE EASING FROM A BUSINESS EXECUTIVE'S PERSPECTIVE

by

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## Abstract

This thesis addresses the impact of quantitative easing on the decision making of individual business leaders and business leaders as a whole. First, an overview of the past, present, and future of quantitative easing is given in the form of a Literature Review to show the reader a timeline of events that has led the U.S. economy to its current state. In this section, an array of information is revealed including factual statistics, positive opinions, and negative opinions to show the different aspects of the policy. Two surveys were also conducted to collect data about the degree to which quantitative easing impacted various decisions made by business leaders since the recession in 2008. The first survey was distributed to business executives who sit on the various Neeley School of Business advisory boards and the second was distributed to a class of Neeley EMBA students. The data collected is further analyzed in the results section of this thesis.

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# INTRODUCTION

The Federal Reserve's Quantitative Easing (QE) policy has been a prevalent topic since the recession in 2008. It all stemmed from a decision made by the Federal Open Market Committee (FOMC) immediately after the recession in 2008. The FOMC decided to target 0 to ¼ percent for the federal funds rate. Since then, the Fed has implemented several rounds of QE with the third round beginning in September 2012. This round entailed purchasing $40 billion mortgage-backed securities and $45 billion in long-term T-bonds each month until the labor market improved. Since then, QE has successfully been scaled down, with the final end date in October of 2014.

QE in the United States has been studied from several angles and perspectives since its origin in 2008. The common themes that have developed throughout the research are split into three distinct groups. First, there are studies of the past which focus on whether QE was necessary from the start and whether the economy could have survived without it. The second theme surrounds the current situation of the U.S. economy. This involves whether QE has actually brought the economy to the prosperous U.S. market that is seen today and the idea that there could be artificial bubbles in the market that are currently being covered up by the Fed's actions. Finally, the third theme, and possibly the most highly debated, concerns the future effects of QE since the assets are still held on the Federal Reserve's balance sheet and the long-term impact on the U.S. economy is still unknown. This is where most of the uncertainty about this policy stems from. The Fed is in unchartered waters and that is reflected through the studies that have been conducted to show the best and worst case scenarios.

That being said, there still appears to be several gaps among the abundance of research. This thesis will focus on one of these gaps specifically. That gap lies in the perspective of executives in the business world. The role and effect of QE on big businesses has been a topic with little research and analysis thus far. CEOs, CFOs, and many of the other key decision makers of companies shape much of the economy that the American public sees. This isn't necessarily through policy actions similar to the Fed, but rather through decisions that are made on a daily basis in large corporations. The U.S. is an entrepreneurial country that is made up of businesses of all shapes and sizes, each with their own impact on the economy.

Both the research and the gaps in research that have been found have led to this thesis topic. The objective is to dive into the decision making process of top-level executives regarding the past, present, and future of quantitative easing. Each of these time frames will be narrowed down to focus on specific actions of the Federal Reserve. The goal is to get the business world's perspective on a series of policies that have shaped the U.S. economy over the past six years and how those policies have impacted businesses and specifically business leaders in the U.S. One of the biggest question marks surrounding this topic is the importance of QE to business executives both individually and as a whole. This is the comparison that will be examined through by research and a detailed survey.

This thesis will follow an outline to first address the opinions and perspectives that currently exist about the past, present and future of QE, and then take a unique spin on this research to address the business decision making perspective of these topics through a survey. The literature review to follow will help frame each of the three themes

that have been debated. It will address in detail the timeline that has led the U.S. to the present and what a projected timeline could look like for the Federal Reserve's future policy actions. A survey will then be conducted that frames the situation followed by a series of questions aimed at pinpointing the effect of QE on the decision making process. These answers will be compiled to give a new perspective on how executive level business leaders have thought through this complex debate.

## REVIEW OF LITERATURE

### Review of the Beginning of Quantitative Easing

On December 16, 2008, The Federal Open Market Committee (FOMC) established a target for the federal funds rate at 0% to 0.25%. At this time, the committee released a statement saying that, "the policy going forward will be to support the functioning of financial markets and stimulate the economy through open market operations and other measures that sustain the size of the Federal Reserve's balance sheet at a high level" (Carlson and Wakefield, 2009). This was just the beginning of five years of monetary policy controlled by the Federal Reserve. The decision to reduce the interest rate to almost zero established what is known as the zero lower bound. Carlson and Wakefield continue to frame the situation by recognizing that the monetary base jumped from $850 billion in late August 2008 to almost $1.7 trillion at the end of 2008. "The doubling of the monetary base in such a short time highlights the fact that the Federal Reserve had already employed other available tools in dramatic fashion to support the functioning of financial markets" (Carlson and Wakefield, 2009).

The interesting part of this is why the Federal Reserve turned to unconventional policy in the first place. The initial action that was taken to bring the federal funds rate close to zero is one of the main conventional monetary policy tools. The president and CEO of the Federal Reserve Bank of San Francisco gave a presentation in October 2013 to explain the two unconventional policies that the Federal Reserve resorted to. He said that, "because of the zero lower bound on the federal funds rate, the Federal Reserved introduced alternative ways to ease financial conditions and thereby stimulate economic growth and job creation" (Williams, 2013). He identified these alternative actions as large-scale asset purchases, otherwise known as QE, and forward policy guidance, which is communicating likely future Fed policy actions.

There are some distinct differences that set these decisions made by the Fed apart. First of all, Ben Bernanke, who created all three rounds of this program, made it very clear that there was a difference between "credit easing" and "quantitative easing." Credit easing, which has been used in the past, pushes money into specific markets that are broken. On the other hand, quantitative easing increases the overall money supply in general (Irwin, 2014). Also, prior to these decisions, the Fed focused on buying and selling Treasury securities when making changes to the money supply. However, during QE, many mortgage-backed securities (MBS) were purchased in addition to treasuries. This in turn "lowered long-term interest rates which stimulated the auto market, the housing market, business investment, and other types of economic investment" (Williams, 2013). This focus on specific markets remains controversial within the Fed and in the eyes of investors, but the purchase of MBS was implemented during the first and third rounds of QE.

Until these tools were implemented in 2008, these ideas had never actually been tested and were mostly based on theory. The growth of the economy over the past few years has proven that these tools are helpful and practical for use in the future if needed. These policies have helped guide the economy through a tough recovery. However, many people wonder if unconventional policy is the new norm both domestically and globally. Research has shown that these policies were needed immediately after the recession, but it is controversial regarding whether they were still necessary five years later. This will be explored further as a more thorough analysis of QE's effectiveness is explained.

**Review of the Current Situation**

There are many different ways to look at the current situation of both the economy as a whole and particularly quantitative easing. Much of the topic revolves around the effectiveness of QE since it began. Effectiveness can be evaluated in many different ways depending on the variables that one chooses to analyze. Therefore, negative and positive conclusions can be reached by looking at a whole spectrum of variables regarding QE. "Researchers willing to assume that the U.S. is a closed domestic economy tend to find a large impact on long-term interest rates from QE. If the U.S. is part of a highly integrated global economy, a smaller effect is presumed" (Putnam, 2013). This shows how the scale of the impact can have a huge effect on the conclusion that is reached. With that in mind, it is important that the reader be reminded that various assumptions are made in the research. However, a broad selection of assumptions and conclusions have been chosen to give a big picture of overall effectiveness that reflects the research topic.

To begin, a description of the present condition of the economy is warranted. As of October 2014, six years of QE has officially come to an end. The Fed's balance sheet is currently $4.48 trillion. This reflects 26 percent of U.S. Global Domestic Product (GDP). The Fed is also still targeting a Federal funds rate of 0 to .25 percent which began in 2008. Buck Klemkosky, a guest blogger for Larry Davidson, expressed an interesting opinion based on a quote from William McChesney Martin, former chairman of the Federal Reserve. Martin said, "the job of the Fed is to take away the punch bowl when the party is still going" (Davidson, 2014, p.1). The big question is whether the "punch bowl", another way of saying monetary aid from the Federal Reserve, is really ready to end. The facts support that the economy is doing well: "the S&P 500 closed at an all-time high in November, the U.S. Treasury 30-year rate and mortgage rates were below 4 percent, the yield on the 10-year treasury was below 2.5 percent, unemployment was 5.9 percent and the Shiller Case housing index has rebounded by 25 percent since a low in 2011" (Davidson, 2014, p.4). Although these are positive statistics, the economy has only grown by 2.2 percent each year since the end of the recession in 2009. On top of that inflation remains a concern for the Fed. There are many positive results and concerns about the present condition of the economy based on unconventional monetary policies. These perspectives will be further explained below.

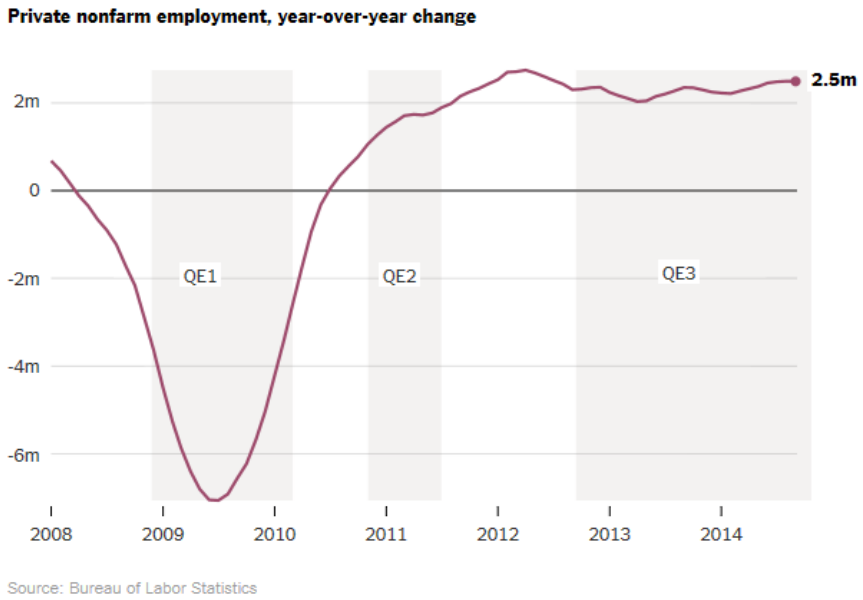
The present condition of the Fed is reflected in the chart (Irwin, 2014) below which was presented by the Federal Reserve. As it shows, prior to the financial crisis in 2008, assets remained fairly constant just below the $1 trillion mark. "In three phases since late 2008, the Federal Reserve has bought trillions of dollars in bonds using newly created money to stimulate the economy" (Irwin, 2014, p.1). In October 2014, the

conclusion of QE3 was reached leaving the Fed with $4.48 trillion worth of assets. On top of that, Janet Yellen, current chairman of the Federal Reserve, has indicated that the Fed will keeps its large balance sheet in place for the near future. As mentioned earlier, quantitative easing was experimental because no longer was the Fed simply buying short-term treasury securities, but instead a large percentage of the Fed's assets are currently made up of long-term treasury bonds and mortgage backed securities.

Total Assets held by the Federal Reserve:


A benchmark for the performance of QE has been unemployment. The third round of QE or QE3 was specifically targeted at reducing the unemployment rate. The Federal Reserve made it very clear that the magnitude of QE and the level of unemployment are closely related. In a New York Times article from October 2014, Neil Irwin stated that, "the impact on jobs is a metaphor for the impact of QE more broadly. It helped the economy recover. But it wasn't fast and it didn't solve every problem" (Irwin, 2014, p.5). This statement is supported in the chart below which shows the gradual year-over-year change of private nonfarm unemployment.

Year-over-year Change in Unemployment:




Job growth has been steady since 2009, but not extraordinary. The biggest positive gain since 1999 was not seen until 2014. This is interesting especially as you look back over all three rounds of QE. The Federal Reserve continuously announced targets for the unemployment rate and made it public that the conclusion of QE would be based on hitting those targets. Therefore, the statement made by Irwin earlier appears accurate regarding the correlation between the two factors. If the benchmark for QE is based on unemployment, then the logical conclusion is that the policy was a success, but that success has come slowly.

In 2013, a panel from the Stanford Institute for Economic Policy Research presented on the topic of "Causes of the Financial Crisis and the Slow Recovery". Essentially, there was a broad discussion on how effective QE has been to date and a description of the state of our economy at the time of the presentation. The paper that was written about this panel takes a clear stance as it provides, "evidence that the recession of

2007-2009 and the weak recovery have both been caused by poor economic policies, including a shift toward more discretionary, more interventionist and less predictable actions. While these policies may have led to temporary growth spurts, average performance was poor" (Taylor, 2013, p.1). Although many of the points made in the article were negative about the actual performance of the policies chosen, it concludes by saying that if the policies are the problem then the easy solution should be to change the policies. That is clearly easier said than done, however it does make the point that conventional policy tools have been extremely effective in the past and would probably benefit the economy more at this time than the continued use of unconventional policy tools.

Another perspective about the outcome of QE says that, "it is harming economic growth, hurting savers, damaging markets, setting dangerous precedents and misallocating capital away from job-creating parts of the economy" (Malpass, 2013, p.365). Malpass goes on to touch on the topic about the misallocation of capital in the financial system and how the current policies of the Fed have created a weak and artificial environment that will lead to the breakdown of the financial market as we know it. Although this can be seen as extreme in some regards, there are many substantial points that support this conclusion. Malpass goes on to say that there is evidence that the current Fed policy can be considered contractionary. It reduces the strength of small business and puts an emphasis on government and big corporations. He pulls evidence from one of Bernanke's speeches which points out that large firms can obtain credit easily, while smaller firms face significantly greater challenges to obtain credit (Malpass, 2013). The author acknowledges that the steps taken immediately after the financial crisis

were warranted. However, his main point is that the duration and stages of QE to this date have been too much and have led to a negative outlook for future repair and growth.

One of the next topics to analyze is the popular criticism that asset or equity bubbles exist in the U.S. as a result of the Fed's actions, and more specifically due to QE. With interest rates close to rock-bottom, many investors have begun to wonder whether the success in the equity market can be attributed to QE policies. Alan Greenspan, former chairman of the Federal Reserve, made a statement in August 2014 that he expected a "significant correction" in the market. Similarly, Janet Yellen also commented that "valuation metrics in some sectors do appear substantially stretched" (Hassett, 2014, p.2). Although both of these statements contribute much ambiguity to the situation, they do acknowledge the possibility that a bubble most likely does exist in the U.S. stock market. Hassett also provided some interesting information regarding the relationship between the Fed's balance sheet and U.S. equity outperformance of the stock markets of OECD (Organization for Economic Cooperation and Development) countries that have not engaged in large-scale asset purchases between 2009 and 2014. He found out that in months where there were bigger increases in the Fed balance sheet, the U.S. stock market also outperformed. This leads to the conclusion that the correlation between these two factors is highly statistically significant for the given time period. This information could easily lead readers to one conclusion, that this correlation confirms that the Fed is responsible for the bubble. However, Hassett also points out that you could look at these results and come to the conclusion that the economy is simply performing well due to the Fed's actions and that the equity market is sustainable at this level. It is true that both of

these perspectives can be reached based on the way the reader chooses to interpret it, but only time will tell which conclusion proves to be true.

Research has also been done on how effective the specific policy of forward guidance has been. Emi Nakamura, a professor at Columbia Business School, completed a study on how the economy responds when the Federal Reserve cuts interest rates. The study focused on changes in interest rates 15 minutes before and after the FOMC made an announcement. The data revealed several different things, one of which involved the finding that, "market perceptions of the Fed's outlook on the economy can work against the Fed's policy decisions" (Nakamura, 2014, p.1). The evidence given for this fact is that when the Fed announces they are lowering rates or even keeping rates low, many investors draw the conclusion that the economy is doing worse and they should remain bearish about economic growth. This is the exact opposite impact that the Fed hopes to have with forward guidance. This study is not conclusive of how all investors act in the market regarding the Fed's announcements, but it does make an interesting generalization about how ineffective forward guidance may have been over an extended period of time.

With the negative view points, also come the positive ones. Pedro Nicolaci Da Costa wrote an article about his research on effectiveness. He found that many studies agreed that QE initially worked very well to prevent deflation and help stabilize an ailing economy, but found disagreement on the topic of growth since the first round of QE. Much of the research that showed negative criticism mirrors the statements made above. However, some contrasting information was found that provides the reader with a more complete understanding. One example of this is from Fed staffers, "that found the first two rounds of bond buys to have raised the level of output by almost 3 percent and

increased private payroll employment by more than 2 million jobs, relative to what otherwise would have occurred" (Nicolaci Da Costa, 2014, p.1). There is no way of telling what the economy would have looked like had the Fed not stepped in, but the evidence of growth shown above leads to the conclusion that the economy has recovered, which is most likely attributed to monetary policy. Another example that supports the effectiveness of QE states that, "the purchases led to economically meaningful and long-lasting reductions in longer-term interest rates on a range of securities" (Nicolaci Da Costa, 2014, p.2). Both of these examples show how the U.S. economy has been positively impacted by the decisions of the Federal Reserve. With a large number of variables at any given time, there is no way to pinpoint which specific factor contributed to specific growth. However, much of the evidence provided above leads to the assumption that the Fed made decisions that have benefited the U.S. up to this point.

Another important factor to acknowledge when analyzing the current state of the economy is inflation. The Fed uses the core personal consumption expenditures deflator (which excludes food and energy) to measure the rate of inflation since 1960. Based on this gauge, inflation is at its lowest since the collection of this data began. Inflation is currently at 1.7%, but has averaged 1.4% since the recession began in 2008. This is below the Fed's target rate of 2.0%. It is important to note that, "the Fed injects money, which creates credit, then growth, jobs, low unemployment and, finally, wage growth – which only then stimulates inflation" (Smith, 2013, p.12). This is supporting the fact that inflation is one of the last results that comes to the surface from monetary policy actions. Therefore, it is difficult to say whether inflation will remain below the target or finally meet the Fed's target. It is expected that inflation will remain modest due to the evolving

global market, but this proposes an interesting hurdle for investors in the future. More modest inflation means that "rock-bottom prices" are growing more quickly than paychecks, at least for the time being. This is a benefit for consumers, but also leaves a lot of uncertainty for the Fed and investors.

**Review of the expected outcome and effects of Quantitative Easing**

It is tough to analyze the future of how the economy will return to normalcy because the outcome of these unconventional tools is unchartered territory. Although the economy has successfully come out of the recession and experienced growth, there are many people that predict that this growth is artificial and based on a number of bubbles that have been created in both the U.S. market and international markets. Research done by Tadashi Nakamae says that, "the economy has become distorted. At home, quantitative easing has pushed up asset prices, especially equity prices…and has also created bubbles in emerging market economies" (Nakamae, 2013, p.1). This is an important issue that Janet Yellen is going to need to address as she works to bring the economy back to a state of normalcy. Since the Federal Reserve has never tested these unconventional policy tools, there is no way to know how the outcome will turn out. Therefore, the claims that Nakamae and many others have made regarding market bubbles may or may not be a valid argument. Only time will tell whether the growth that the U.S. economy has seen is real.

Another angle to consider relates back to an earlier section about forward policy guidance. The Federal Reserve's strong stance on policy has led markets to rely heavily on what the Fed says before it even implements its actions. In an article in late 2013 in Kiplinger's Personal Finance, Jeremy Siegel says that, "by adopting a policy that was

well outside the expectations of virtually every market watcher, the Fed damaged its most valuable asset: credibility. In the future, the Fed will have a much tougher job convincing the markets that it means what it says" (Siegel, 2013, p.1). This statement accurately sums up the hypothesis of many individuals that forward guidance will be less impactful in the future due to the way that the Fed has communicated over the past five years. As proven through Bernanke's time, the Fed's words has had the ability to move markets. However, with QE being stretched out to three rounds and uncertainty regarding the future of interest rates, there is little to be said about how credible the Fed actually is moving forward. This will be a task that Janet Yellen will have to deal with as the Fed's policies come to a conclusion. Transparency by the Federal Reserve will be key to gain back the market's confidence.

This topic is further discussed in a speech that Bernanke gave in 2012. He acknowledged the fact that there are both benefits and costs to the route that the Federal Reserved decided to take. One of the "potential cost of additional securities purchases is that substantial further expansions of the balance sheet could reduce public confidence in the Fed's ability to exit smoothly from its accommodative policies at the appropriate time. Even if unjustified, such a reduction in confidence might increase the risk of a costly unanchoring of inflation expectation, leading in turn to financial and economic instability" (Bernanke, 2012). These statements support the uncertainty that many people have regarding the economy and the Federal Reserve. He also addresses the important question that many people have regarding the exit of QE. The Fed has given very little guidance about how it plans to exit this program and establish a sense of normalcy with both interest rates and inflation returning to a normal level. Bernanke goes on to explain

that the Federal Reserve will continue to take actions to make sure that unemployment is reduced and that the benefits of its choices outweigh the costs. However, that leads to the reliance that markets have on the Fed. It brings questions to mind about how heavy the reliance of the U.S. economy is on the Fed's choices which could lead to potential problems as the Fed exits QE and restores the economy to pre-crisis conditions.

There are endless possibilities for the exit of QE because this is a first for the Federal Reserve and there are many different factors to consider. Just to clarify, "exit" refers to the way that the Federal Reserve will slowly back out of the policies it implemented in 2008 and allow the U.S. economy and financial markets to operate on their own. There is no clear consensus on what the best route for the Fed is, but there are varying opinions that support the same general idea that it is time for a gradual exit to occur. From the perspective of Buck Klemkosky, who was mentioned earlier, the Fed has a few options. First of all, they could raise the interest rate on excess bank reserves. However, this could be difficult to achieve because it would raise the profits of banks without any risk on their part. Klemkosky also points out that other short-term borrowing markets could be targeted such as the Eurdollar, Libor, commercial paper, and repo markets (Davidson, 2014). If and when the Fed chooses to raise interest rates, it will be extremely difficult and risky because the economy has grown to rely on this factor. There is a general consensus that this will not occur until late 2015, if not after.

Some of David Malpass's research was further explained in the CATO Journal. He has proposed a detailed exit strategy for the Federal Reserve. However, it is important to note that his exit strategy is based on his theory that there is a capital misallocation within the U.S. economy. Nonetheless, Malpass suggests that, "the best exit would be for

the government to adopt growth-oriented tax, spending, and regulatory policies in parallel with a new growth-oriented Fed resolve to downsize its role in capital allocation and commit to providing a strong and stable dollar" (Malpass, 2013, p.375). By doing this, the economy will be able to rebound and create actual new jobs based on less Fed intervention. Through clear communication from the Federal Reserve about its actions and expectations, the economy can slowly move to being sustainable on its own without the aid of the Fed. This will need to be a gradual process, but one that is important to future growth in the U.S economy. Investors need to be reassured that the Fed will interfere less in coming years. As seen by the present situation, the current state of the economy is positive. Although the complete results of QE are yet to be realized, there will need to come a point where the Fed interferes less. There is much uncertainty about the stability of the economy in the near future, but only time will tell what the best exit strategy will be.

# SURVEY RESULTS

## Executive Results

Throughout the brainstorming and writing process of this thesis, the topic has been narrowed down to the impact of quantitative easing on decisions made by business executives and leaders. The survey that was distributed was split up into three main parts. The first asked questions about decisions that the individual made in reaction to QE. The second section asked questions as individuals believed business executives and leaders as a whole reacted to QE. Finally, the third section was used as a base case regarding the individual's understanding of the background of QE and future outlook for the economy.

The survey was sent out on February 12, 2015 and responses were collected on February 24, 2015. A total of 38 responses were received. The demographic breakdown of these responses is shown in the table below.

| Executive Survey Demographic Information | | | |
|---|---|---|---|
| | | **Number** | **Percent** |
| **Current Position** | CEO | 13 | 34.21% |
| | COO | 2 | 5.26% |
| | CFO | 3 | 7.89% |
| | Other C-Level | 10 | 26.32% |
| | Other Managerial | 7 | 18.42 |
| | Non-Managerial | 3 | 7.89% |
| | | | |
| **Industry** | Energy | 3 | 7.89% |
| | Manufacturing | 6 | 15.79% |
| | Information Technology | 1 | 2.63% |
| | Finance & Insurance | 17 | 44.74% |
| | Health Care | 1 | 2.63% |
| | Other-For Profit | 9 | 23.68% |
| | Other-Nonprofit | 1 | 2.63% |
| | | | |
| **Years of Experience in the Industry** | 1-5 | 2 | 5.26% |
| | 6-10 | 2 | 5.26% |
| | 11-15 | 3 | 7.89% |
| | 16-20 | 5 | 13.16% |
| | 20+ | 26 | 68.42% |

With the assistance of Dean Homer Erekson, the survey was distributed to a list of contacts that sit on the various advisory boards of the Neeley School of Business. All responses were kept completely anonymous and the only personal information collected is the demographic information listed in the table above. The survey was optional and there were no risks to participation.

Each survey question was based on the seven point scale shown below that ranged from strongly disagree to strongly agree.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |

The questions regarding what individuals thought and what business executives as a whole thought mirrored each other in order to more easily compare the results. The original survey and results are shown in Appendix A and B. Specific comparisons were tested for statistical significance using an ANOVA or analysis of variance test as shown in the data below.

The null hypothesis, or $H_0$, for this thesis is that QE didn't affect the decision making of individuals or business executives as a whole. This leaves the hypothesis, or $H_1$, as QE impacted the decision making of both individuals and business executives as a whole. In order to test that, I looked at the scale shown above from "somewhat agree" to "strongly agree." I also tested the null hypothesis using the ANOVA test mentioned previously. Upon analyzing the data, the first conclusion is that individuals thought QE impacted their personal decisions much less than it impacted the decisions of business leader's as a whole. Topics that were addressed include: short-term liquid assets,

contribution to an asset bubble, short-term v. long-term decisions, forward guidance, and boosted dividends/share repurchases.

Several questions stood out in particular. The first is the impact of QE in the short-term. Participants were asked to what degree "QE impacted your short-term decisions as a business leader", and later to what degree "QE impacted business leader's short-term decisions." There was a significant difference between the two groups ($F_{1,71}$ = 9.16, p<.003). The results concluded that individuals thought that QE had less of an impact on short-term decisions (M=4.26, SD=1.93) than the impact that QE had on the decisions of overall business executives (M=5.37, SD=1.03). This means that only about 58% at least somewhat agreed personally, while 89% at least somewhat agreed for executives as whole. This data shows that although there is a strong consensus that QE impacted short-term decisions for business executives, individuals were much less likely to admit the degree to which it impacted their decisions personally. This suggests that QE was much less influential than people think. It is evident that QE helped the economy, but very few business leaders were actually motivated by it.

This holds true for the impact of the Fed's forward guidance policy on strategic planning. Specifically, the question asked participants to what degree "the Fed's forward guidance policy affected your strategic planning more than it had before the recession" and to what degree "the Fed's forward guidance policy affected strategic planning for business leaders more than it had before the recession." Only 51% of individuals agreed to forward guidance having at least somewhat of an impact compared to 77% that agreed it at least somewhat had an impact on overall business leaders. This comparison is statistically significant ($F_{1,70}$ = 8.71, p<.004) showing the mean for individuals' decisions

(M=4.08, SD=1.72) is much lower than the mean for overall business leaders' decisions (M=5.11, SD=1.18). Similarly, a topic that was identified earlier in the literature review is the strong belief that companies have boosted dividends and share repurchases to bounce back from the economy. Participants were asked to what degree this occurred in their own company in comparison to the executives as a whole. Only 13% of respondents admitted to personally making this decision. However, 54% believed that this was a decision that business executive's made in response to the recession. Although just a slight majority, this suggest that people believe companies boosted dividends and share repurchases, but this belief did not change their own decisions. Therefore, this is likely a fictional belief. The significance of this relationship is supported through further analysis ($F_{1,71} = 16.30$, $p<.001$) with the mean of individuals admitting to share repurchases (M=3.08, SD=1.53) being less than the expectation that business executives have used share repurchases as a tool (M=4.51, SD=1.50).

Although many conclusions can be drawn from this data, it supports the null hypothesis in many ways because the data shows that there are stronger beliefs about the impact of QE on decision making by business executives as a whole as opposed to individuals admitting that they altered their decisions based on the same factors. There could be many reasons behind this conclusion. It could be due to the fact that individuals didn't pinpoint QE as the specific reason for their decisions since the recession. There is a high possibility of this given the number of factors that executives must take into account when making strategic decisions. Another reason that could have led to this conclusion is the concept of a self-fulfilling prophecy. Many of the topics pinpointed for the survey are talked about often in the media and professional journals. There is wide belief that QE

has had an impact on companies in one way or another. Therefore, the responses for executives as a whole could reflect that opinion that individuals are acknowledging that organizations have altered their decisions based on QE, but just not willing to admit that it specifically did or did not involve their company.

Another factor that could have contributed to the impact on decision making is the current position of the respondent. In most cases, the CEO makes the final call on strategic decisions within an organization. This could leave many other positions below the CEO naïve to some of the factors that contributed to a decision, such as quantitative easing or other macroeconomic issues. However, after breaking down the results to individual responses and comparing the results of CEOs verse all other positions, there appear to be no abnormal discrepancies in the data. This proved true for the remainder of the demographic factors as well. Other results in the demographic information that stood out were the majority of individuals in the finance & insurance industry as well as the majority of individuals that had 20+ years of experience. Neither of these are necessarily bad things, but just observations to consider. After comparing finance & insurance to all other industries as well as 20+ years of experience to all individuals with less experience, there did not appear to be one category that answered differently than the others. This is reassuring that the sample was entirely random and very few outliers

The background portion of the survey was used as more of a base case to see where the minds of executives were at for both the origin of QE and the outlook of QE. The responses came back mixed, but there were a few points that stood out. First, 80% of the executives surveyed at least somewhat agreed that “unconventional monetary policies were warranted to bring the U.S. economy out of the 2008 recession” and 71% at least

somewhat agreed "QE was an appropriately aggressive policy under the circumstances in 2008." This is interesting because this shows how important executives think QE was in the economic recovery. With this level of belief that QE was warranted, it seems natural that it would be at the forefront of executive's decision making.

Secondly, almost 83% believed that "the initial interest rate change positively impacted the borrowing habits of corporations." In some ways this statement opposes the statement that companies held on to and maintained short-term liquid assets due to QE. Both could be true because the interest rate question just targets the initial change in interest rates back in 2009. It is most likely true that there was an initial spike in borrowing habits at that time for companies who were in a financial position to take advantage of it. However, for companies that were struggling, more liquid assets would have been appropriate. This is especially true given the current uncertainty about when interest rates will increase.

**EMBA Results**

A copy of the same survey was also distributed to a class of 29 Executive MBA students in the Neeley School of Business. This was done to provide contrast and another perspective on top of the previously released survey. The results were kept separate of the Executive Survey. The key difference with this pool of respondents is that the majority are in lower managerial positions. However, the industry and years of experience remained diversified. Specific demographic information for the respondents of this survey is listed below.

| EMBA Survey Demographic Information | | | |
|---|---|---|---|
| | | **Number** | **Percent** |
| **Current Position** | CEO | 3 | 10.34% |
| | COO | 1 | 3.45% |
| | CFO | 0 | 0.00% |
| | Other C-Level | 4 | 13.79% |
| | Other Managerial | 20 | 68.97% |
| | Non-Managerial | 1 | 3.45% |
| | | | |
| **Industry** | Energy | 1 | 3.45% |
| | Construction | 2 | 6.90% |
| | Manufacturing | 3 | 10.34% |
| | Information Technology | 1 | 3.45% |
| | Finance & Insurance | 3 | 10.34% |
| | Health Care | 1 | 3.45% |
| | Other-For Profit | 10 | 34.48% |
| | Other-Nonprofit | 8 | 27.59% |
| | | | |
| **Years of Experience in the Industry** | 1-5 | 3 | 10.34% |
| | 6-10 | 6 | 20.69% |
| | 11-15 | 7 | 24.14% |
| | 16-20 | 6 | 20.69% |
| | 20+ | 7 | 24.14% |

After examining the responses, one clear observation is the higher averages for each question in the personal decisions section of the survey. However, the averages are slightly thrown off by the fact that many more individuals responded “neither agree nor disagree” on the EMBA survey than on the Executive survey. One reason for this could be the position of the EMBA students. Many of them are in lower managerial positions which means that they don’t have the same decision making perspective. Most Executives were able to distinguish which way they were leaning which led to lower averages for each question.

One question that stood out from the EMBA results is the impact QE had on the individual’s decisions both short-term and long-term. About 55% of executives and 62% of EMBA students at least somewhat agreed with the statements that “QE impacted your short-term decisions as a business leader” and “QE impacted your long-term decisions as

a business leader." There was not statistical support of a discrepancy between Business Executives and EMBA students for either short-term decisions ($F_{1,65} = 2.12$, $p=.150$) or long-term decisions ($F_{1,65} = 3.85$, $p=.054$), leading to the conclusion that there was agreement on this particular question. This counters the previous point made about the decision making process being based on current position. Although that still holds true to a certain degree, the results show the importance of QE on a wide variety of positions within a company. The impact of QE was not only felt at the highest level of strategic planning, but also trickled down to various roles within a company.

The second series of questions regarding decisions made by business executives as a whole also shows some interesting inconsistencies. The average score for the EMBA students is higher than the executives on seven of the nine questions. On top of that, there is a much tighter gap among the EMBA responses with a very strong majority agreeing on the topics addressed. One difference is the strong belief of EMBA students about the degree to which "business executives intentionally held on to and maintained short-term assets due to QE." Almost 90% of EMBA students v. 69% of executives believe business leaders made this decision. This is supported with further analysis ($F_{1,62} = 6.40$, $p<.014$). This shows that the mean for this question asked of EMBA students ($M=5.55$, $SD=0.69$) is statistically greater than the mean for Business Executives ($M=4.8$, $SD=1.47$). Similarly, 72% of EMBA students v. about 40% of business executives believe "companies contributed to an asset bubble in the current equity market." There is a significant difference between the two groups ($F_{1,62} = 14.75$, $p<.001$). This is reflected in a much lower mean for Business Executives ($M=3.74$, $SD=1.60$) than EMBA students ($M=5.10$, $SD=1.14$). However, one reason for this difference could be due to the fact that

the EMBA students have been exposed to these concepts more frequently in a classroom setting than executives have been. Top executives may be blinded to some of the larger macroeconomic talking points that students are exposed to on a regular basis. Despite this possible reason, it is interesting to see how strongly the EMBA students perceive the impact of QE on decision making for business executives as a whole.

# CONCLUSION

Overall, this survey shed light on many of the questions addressed in both the introduction and literature review of this thesis. Although just a small sample of opinions was taken for this survey, many observations gave insight into the minds of business executives in regards to quantitative easing and the Federal Reserve's actions. The final conclusion reached after analyzing the survey data contradicts the original hypothesis of this thesis. As the results section showed, it is clear that although QE positively impacted the U.S. economy since 2008, it did not have a direct impact on the decision making of business executives and leaders in the United States.

Given QE's lack of an impact on decision-making for business executives, this means that the impact that has led the U.S. to recover up to this point has been felt in another part of the economy. The results are intriguing and leave the direct impact of QE unknown up to this point. Only time will tell how this policy plays out and what exactly was the key to its success. The results of this survey and thesis provide the basis for many other opportunities for research regarding the impact of QE on decision making in the business world and other areas.

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# APPENDIX A – EXAMPLE OF THE SURVEY DISTRIBUTED

Demographic information
Current position: CEO, CFO, COO, Other C-Level, Other Managerial, Non-Managerial
Industry: Energy, Construction, Manufacturing, Information Technology, Finance & Insurance, Health Care, Other-For Profit, Other-Nonprofit
Years of experience in industry: 1-5, 6-10, 11-15, 15-20, 20+

Point of Survey: The purpose of this research project is to examine the degree to which quantitative easing has affected the decision making of business executives.

Background

In 2008, the U.S. economy spiraled into a recession due to the collapse of the housing market. This caused banks and investors to stop lending, the stock market to endure its worst fall since the Great Depression, and unemployment to soar. On December 16, 2008, The Federal Open Market Committee (FOMC) stepped in to establish a target for the federal funds rate at 0% to 0.25%. Unconventional monetary policies were also introduced. This included large-scale asset repurchases, otherwise known as quantitative easing (QE), and forward policy guidance, which is communicated likely future Fed policy actions. The monetary base jumped from $850 billion in late August 2008 to almost $1.7 trillion at the end of 2008.

You
Please answer these questions based on the decisions you personally made in reaction to QE as you understood it since 2008.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |

- You intentionally held on to and maintained short-term liquid assets within your company due to QE.
- You are concerned that decisions you made since the recession may have contributed to an asset bubble.
- QE impacted your short-term decisions as a business leader.
- QE impacted your long-term decisions as a business leader.
- The Fed's forward guidance policy affected your strategic planning more than it had before the recession.
- Your company boosted dividends and share repurchases to bounce back from the recession.

Executives
For this section please answer these questions as you believe business executives and leaders as a whole reacted to QE.

1----------2----------3----------4----------5----------6----------7

| Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|

- Business executives intentionally held on to and maintained short-term liquid assets due to QE.
- Companies contributed to an asset bubble in the current equity market.
- Consumers contributed to an asset bubble in the current equity market.
- QE impacted business leader's short-term decisions.
- QE impacted business leader's long-term decisions.
- The Fed's forward guidance policy affected strategic planning for business leaders more than it had before the recession.
- Executives boosted dividends and share repurchases to bounce back from the recession.
- Improvements in consumer confidence were an important driver in the economic recovery over the past eight years.
- Supply side factors played a bigger role than demand side factors in the economic recovery.

Please answer the following questions given the circumstances outlined in the background paragraph above.

1----------2----------3----------4----------5----------6----------7

| Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|

- Unconventional monetary policies were warranted to bring the U.S. economy out of the 2008 recession.
- QE was an appropriately aggressive policy under the circumstances in 2008.
- The initial interest rate change positively impacted the borrowing habits of corporations.
- The rate of growth of the U.S. economy since 2008 would have been higher if a more conservative approach had been taken by the Federal Reserve.
- I have a positive outlook for the long-term effects of QE.
- Looking forward, I have confidence in the Federal Reserve's decisions.

<u>Close</u>

Thank you for taking the time to answer the questions included in this survey. You have made a valuable contribution towards the research that will be included in my final thesis. If you would have any questions or would like to provide any additional commentary on the topic, please feel free to email me at k.schulz@tcu.edu.

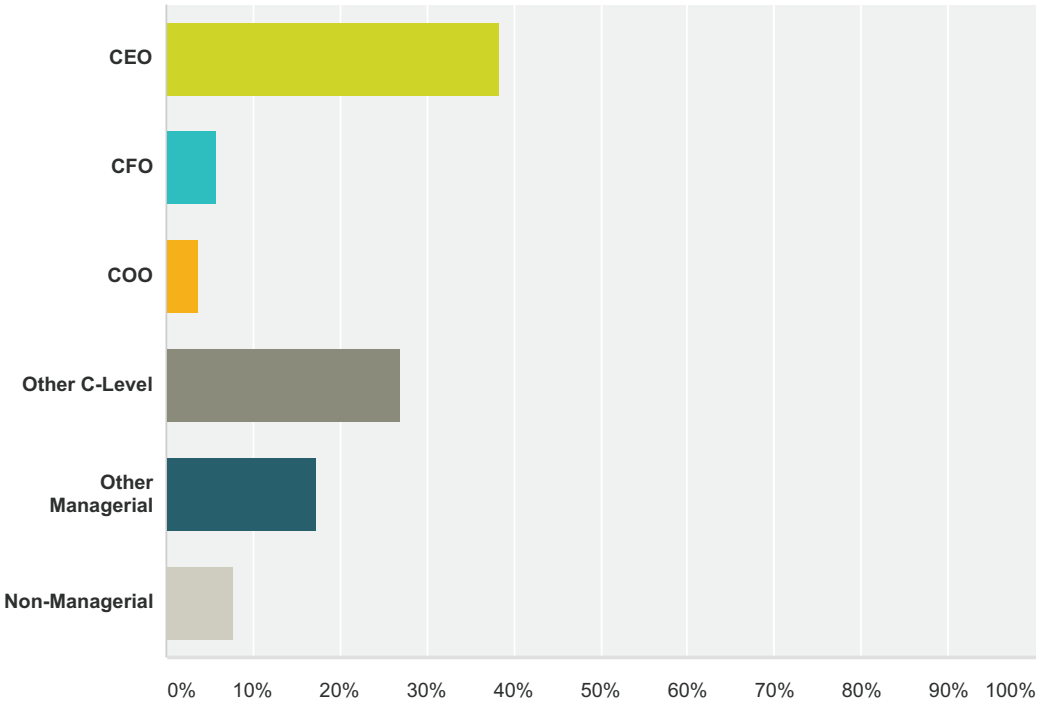
Sincerely,
Kirby Schulz
Texas Christian University
Finance Major, Class of 2015

# APPENDIX B – SURVEY RESULTS

A summary of the survey results are attached beginning on next page with the Executive results, followed by the EMBA results.

## Q1 Current Position:

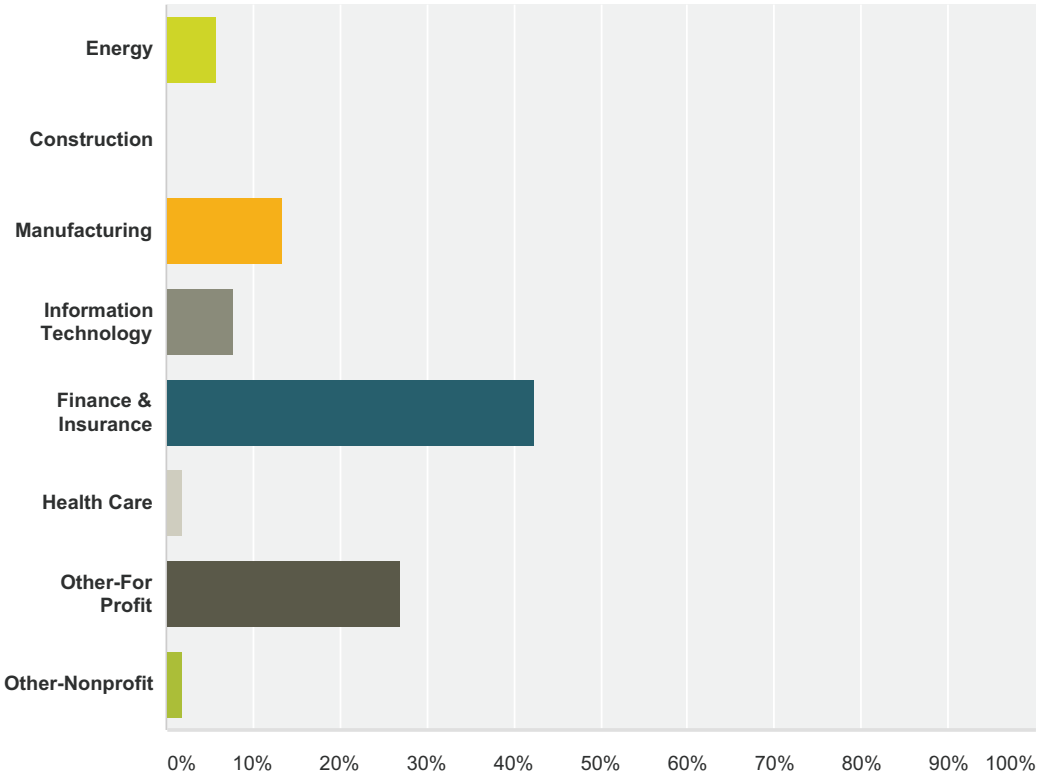
Answered: 52 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| CEO | **38.46%** | 20 |
| CFO | **5.77%** | 3 |
| COO | **3.85%** | 2 |
| Other C-Level | **26.92%** | 14 |
| Other Managerial | **17.31%** | 9 |
| Non-Managerial | **7.69%** | 4 |
| **Total** | | **52** |

## Q2 Industry:

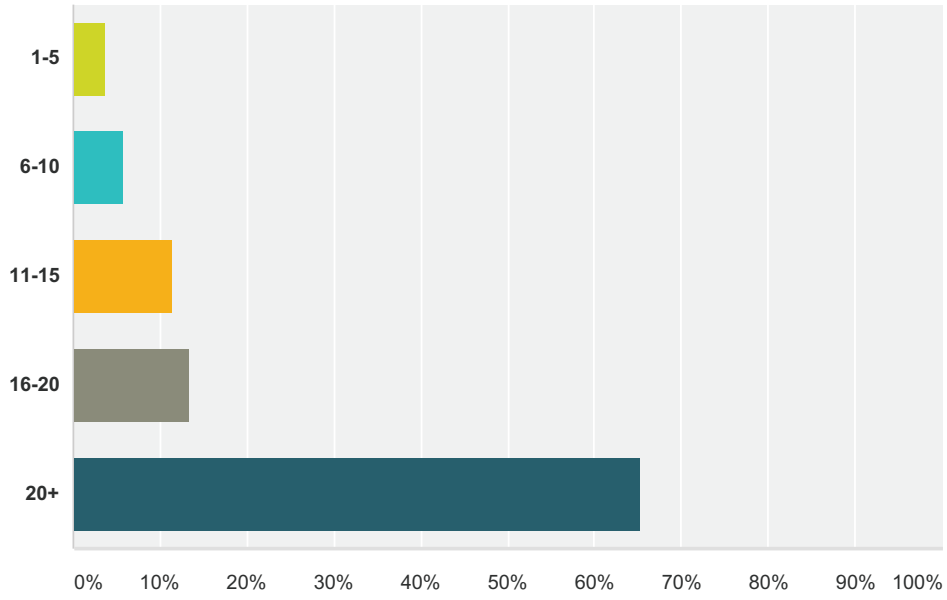
Answered: 52 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| Energy | **5.77%** | 3 |
| Construction | **0.00%** | 0 |
| Manufacturing | **13.46%** | 7 |
| Information Technology | **7.69%** | 4 |
| Finance & Insurance | **42.31%** | 22 |
| Health Care | **1.92%** | 1 |
| Other-For Profit | **26.92%** | 14 |
| Other-Nonprofit | **1.92%** | 1 |
| **Total** | | **52** |

## Q3 Years of Experience in Industry:

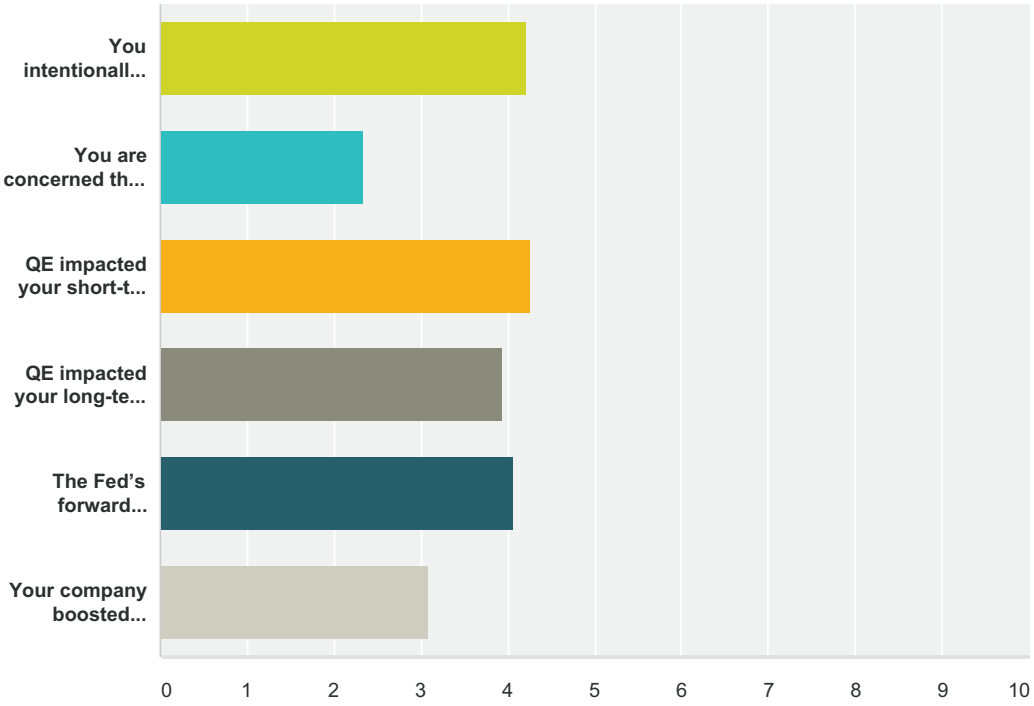
Answered: 52 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| 1-5 | **3.85%** | 2 |
| 6-10 | **5.77%** | 3 |
| 11-15 | **11.54%** | 6 |
| 16-20 | **13.46%** | 7 |
| 20+ | **65.38%** | 34 |
| **Total** | | **52** |

## Q4 Please answer these questions based on the decisions you personally made in reaction to QE as you understood it since 2008.

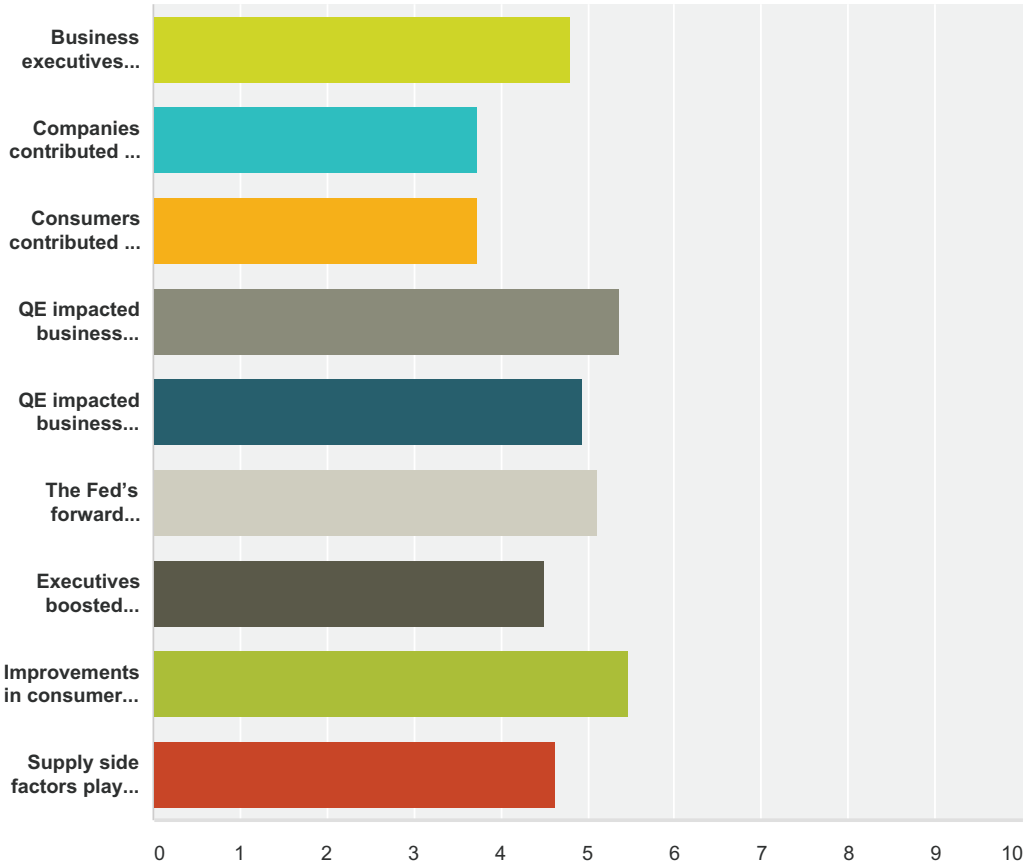
Answered: 38 Skipped: 14




| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| You intentionally held on to and maintained short-term liquid assets within your company due to QE. | **5.26%** 2 | **23.68%** 9 | **2.63%** 1 | **15.79%** 6 | **26.32%** 10 | **18.42%** 7 | **7.89%** 3 | 38 | 4.21 |
| You are concerned that decisions you made since the recession may have contributed to an asset bubble. | **36.84%** 14 | **34.21%** 13 | **7.89%** 3 | **7.89%** 3 | **7.89%** 3 | **2.63%** 1 | **2.63%** 1 | 38 | 2.34 |
| QE impacted your short-term decisions as a business leader. | **13.16%** 5 | **13.16%** 5 | **5.26%** 2 | **10.53%** 4 | **26.32%** 10 | **23.68%** 9 | **7.89%** 3 | 38 | 4.26 |
| QE impacted your long-term decisions as a business leader. | **13.16%** 5 | **21.05%** 8 | **7.89%** 3 | **5.26%** 2 | **26.32%** 10 | **21.05%** 8 | **5.26%** 2 | 38 | 3.95 |
| The Fed's forward guidance policy affected your strategic planning more than it had before the recession. | **5.41%** 2 | **27.03%** 10 | **0.00%** 0 | **16.22%** 6 | **24.32%** 9 | **27.03%** 10 | **0.00%** 0 | 37 | 4.08 |
| Your company boosted dividends and share repurchases to bounce back from the recession. | **18.42%** 7 | **26.32%** 10 | **5.26%** 2 | **36.84%** 14 | **5.26%** 2 | **7.89%** 3 | **0.00%** 0 | 38 | 3.08 |

## Q5 For this section please answer these questions as you believe business executives and leaders as a whole reacted to QE.

Answered: 35 Skipped: 17

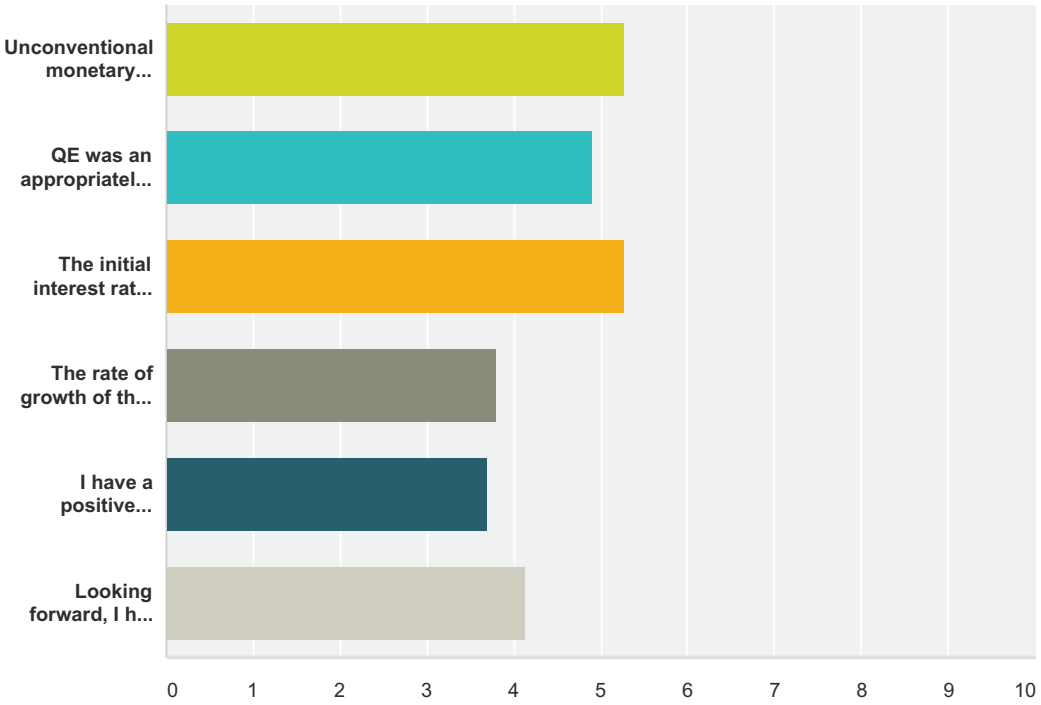



| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| Business executives intentionally held on to and maintained short-term liquid assets due to QE. | **0.00%** 0 | **11.43%** 4 | **8.57%** 3 | **11.43%** 4 | **37.14%** 13 | **20.00%** 7 | **11.43%** 4 | 35 | 4.80 |
| Companies contributed to an asset bubble in the current equity market. | **5.71%** 2 | **22.86%** 8 | **17.14%** 6 | **20.00%** 7 | **14.29%** 5 | **20.00%** 7 | **0.00%** 0 | 35 | 3.74 |
| Consumers contributed to an asset bubble in the current equity market. | **5.71%** 2 | **22.86%** 8 | **22.86%** 8 | **8.57%** 3 | **22.86%** 8 | **14.29%** 5 | **2.86%** 1 | 35 | 3.74 |
| QE impacted business leader's short-term decisions. | **0.00%** 0 | **2.86%** 1 | **2.86%** 1 | **5.71%** 2 | **40.00%** 14 | **40.00%** 14 | **8.57%** 3 | 35 | 5.37 |
| QE impacted business leader's long-term decisions. | **0.00%** 0 | **5.71%** 2 | **8.57%** 3 | **14.29%** 5 | **31.43%** 11 | **37.14%** 13 | **2.86%** 1 | 35 | 4.94 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| The Fed's forward guidance policy affected strategic planning for business leaders more than it had before the recession. | **0.00%** 0 | **5.71%** 2 | **2.86%** 1 | **14.29%** 5 | **34.29%** 12 | **37.14%** 13 | **5.71%** 2 | 35 | 5.11 |
| Executives boosted dividends and share repurchases to bounce back from the recession. | **2.86%** 1 | **8.57%** 3 | **11.43%** 4 | **22.86%** 8 | **28.57%** 10 | **17.14%** 6 | **8.57%** 3 | 35 | 4.51 |
| Improvements in consumer confidence were an important driver in the economic recovery over the past eight years. | **2.86%** 1 | **2.86%** 1 | **5.71%** 2 | **2.86%** 1 | **28.57%** 10 | **34.29%** 12 | **22.86%** 8 | 35 | 5.46 |
| Supply side factors played a bigger role than demand side factors in the economic recovery. | **0.00%** 0 | **8.57%** 3 | **20.00%** 7 | **11.43%** 4 | **25.71%** 9 | **28.57%** 10 | **5.71%** 2 | 35 | 4.63 |

## Q6 Please answer these questions based on the background information provided and your outlook for the future.

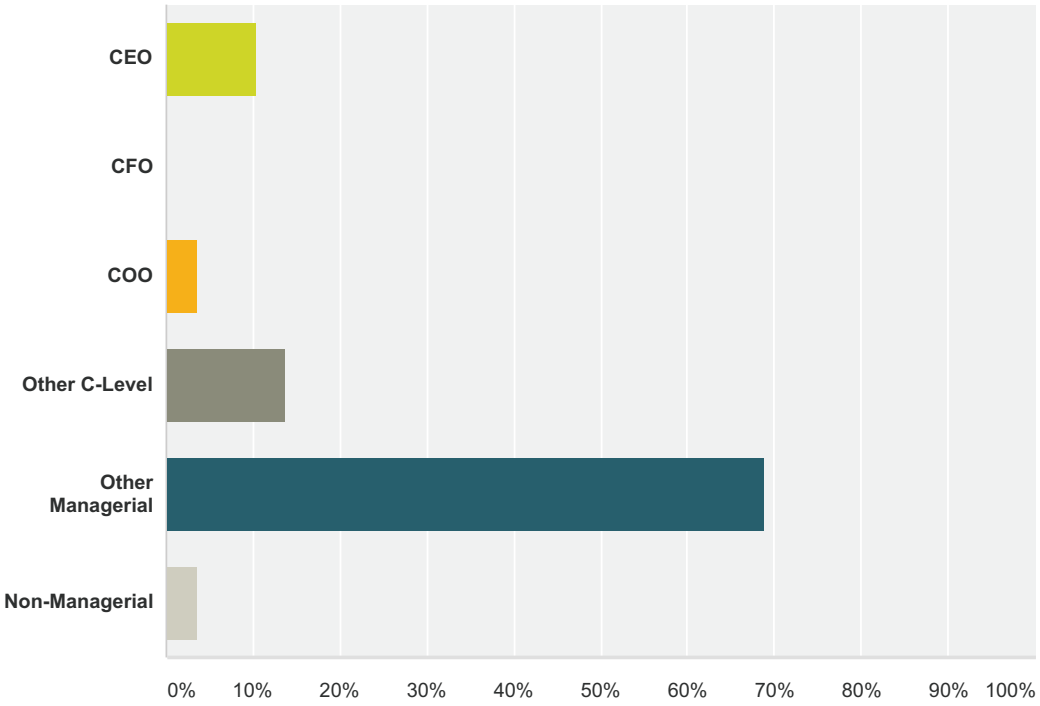
Answered: 35 Skipped: 17




| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| Unconventional monetary policies were warranted to bring the U.S. economy out of the 2008 recession. | **2.86%** 1 | **5.71%** 2 | **5.71%** 2 | **5.71%** 2 | **22.86%** 8 | **40.00%** 14 | **17.14%** 6 | 35 | 5.29 |
| QE was an appropriately aggressive policy under the circumstances in 2008. | **2.86%** 1 | **8.57%** 3 | **14.29%** 5 | **2.86%** 1 | **20.00%** 7 | **42.86%** 15 | **8.57%** 3 | 35 | 4.91 |
| The initial interest rate change positively impacted the borrowing habits of corporations. | **5.71%** 2 | **2.86%** 1 | **0.00%** 0 | **8.57%** 3 | **28.57%** 10 | **40.00%** 14 | **14.29%** 5 | 35 | 5.29 |
| The rate of growth of the U.S. economy since 2008 would have been higher if a more conservative approach had been taken by the Federal Reserve. | **5.71%** 2 | **20.00%** 7 | **25.71%** 9 | **11.43%** 4 | **17.14%** 6 | **14.29%** 5 | **5.71%** 2 | 35 | 3.80 |
| I have a positive outlook for the long-term effects of QE. | **14.29%** 5 | **14.29%** 5 | **17.14%** 6 | **5.71%** 2 | **40.00%** 14 | **8.57%** 3 | **0.00%** 0 | 35 | 3.69 |
| Looking forward, I have confidence in the Federal Reserve's decisions. | **5.71%** 2 | **11.43%** 4 | **14.29%** 5 | **11.43%** 4 | **45.71%** 16 | **11.43%** 4 | **0.00%** 0 | 35 | 4.14 |

## Q1 Current Position:

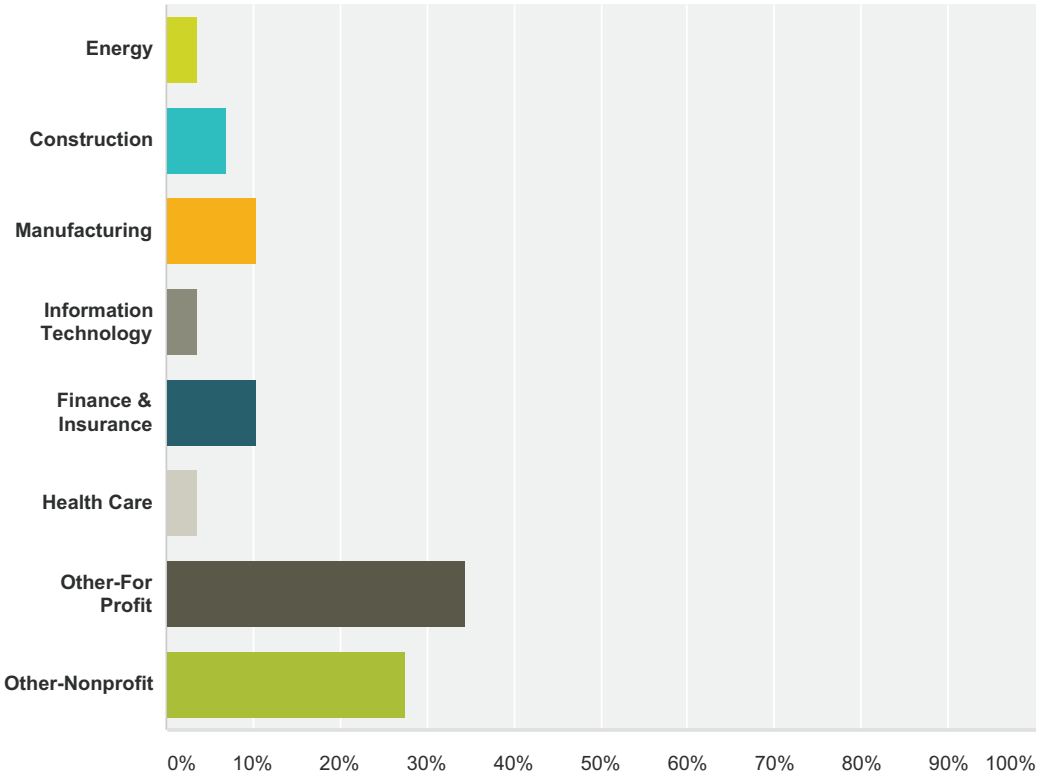
Answered: 29 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| CEO | **10.34%** | 3 |
| CFO | **0.00%** | 0 |
| COO | **3.45%** | 1 |
| Other C-Level | **13.79%** | 4 |
| Other Managerial | **68.97%** | 20 |
| Non-Managerial | **3.45%** | 1 |
| **Total** | | **29** |

## Q2 Industry:

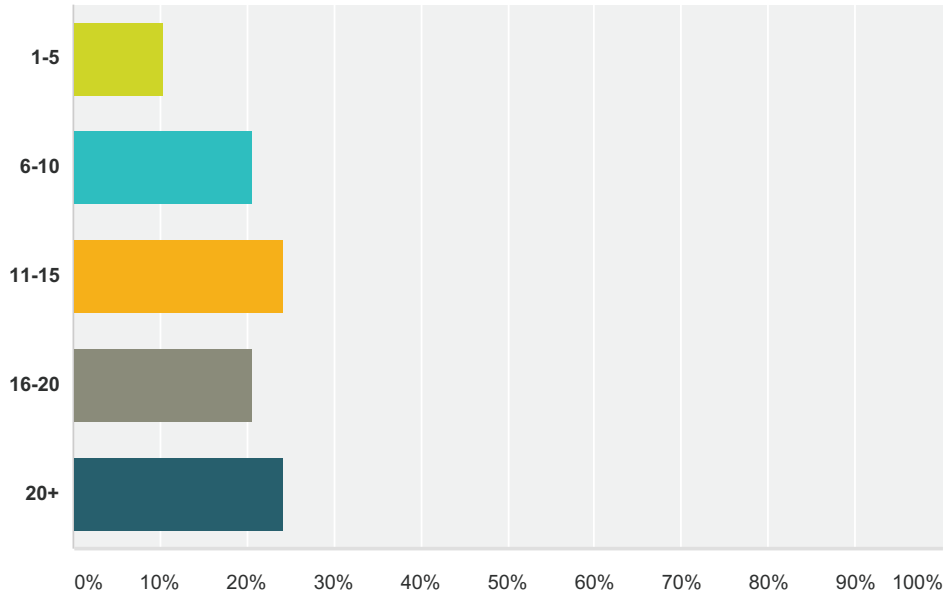
Answered: 29 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| Energy | **3.45%** | 1 |
| Construction | **6.90%** | 2 |
| Manufacturing | **10.34%** | 3 |
| Information Technology | **3.45%** | 1 |
| Finance & Insurance | **10.34%** | 3 |
| Health Care | **3.45%** | 1 |
| Other-For Profit | **34.48%** | 10 |
| Other-Nonprofit | **27.59%** | 8 |
| **Total** | | **29** |

## Q3 Years of Experience in Industry:

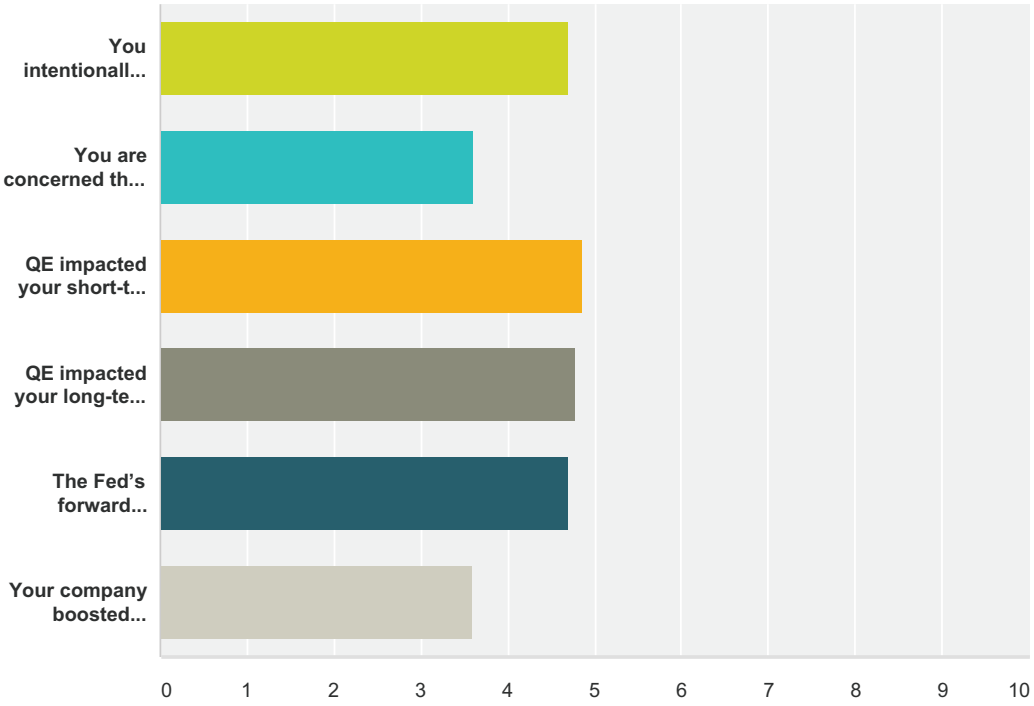
Answered: 29 Skipped: 0




| Answer Choices | Responses | |
|---|---|---|
| 1-5 | **10.34%** | 3 |
| 6-10 | **20.69%** | 6 |
| 11-15 | **24.14%** | 7 |
| 16-20 | **20.69%** | 6 |
| 20+ | **24.14%** | 7 |
| **Total** | | **29** |

## Q4 Please answer these questions based on the decisions you personally made in reaction to QE as you understood it since 2008.

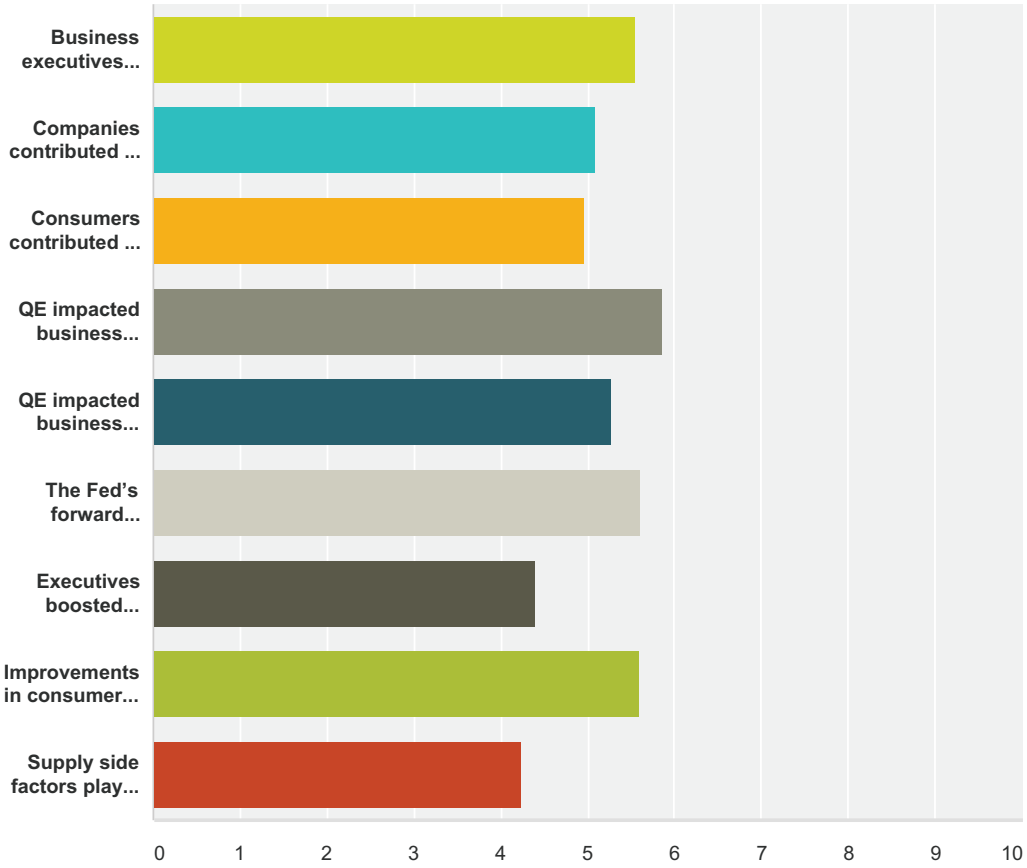
Answered: 29 Skipped: 0




| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| You intentionally held on to and maintained short-term liquid assets within your company due to QE. | **0.00%** 0 | **6.90%** 2 | **6.90%** 2 | **37.93%** 11 | **10.34%** 3 | **34.48%** 10 | **3.45%** 1 | 29 | 4.69 |
| You are concerned that decisions you made since the recession may have contributed to an asset bubble. | **3.45%** 1 | **24.14%** 7 | **10.34%** 3 | **37.93%** 11 | **17.24%** 5 | **6.90%** 2 | **0.00%** 0 | 29 | 3.62 |
| QE impacted your short-term decisions as a business leader. | **0.00%** 0 | **6.90%** 2 | **0.00%** 0 | **31.03%** 9 | **34.48%** 10 | **17.24%** 5 | **10.34%** 3 | 29 | 4.86 |
| QE impacted your long-term decisions as a business leader. | **0.00%** 0 | **13.79%** 4 | **0.00%** 0 | **24.14%** 7 | **24.14%** 7 | **31.03%** 9 | **6.90%** 2 | 29 | 4.79 |
| The Fed's forward guidance policy affected your strategic planning more than it had before the recession. | **0.00%** 0 | **6.90%** 2 | **6.90%** 2 | **24.14%** 7 | **34.48%** 10 | **27.59%** 8 | **0.00%** 0 | 29 | 4.69 |
| Your company boosted dividends and share repurchases to bounce back from the recession. | **6.90%** 2 | **20.69%** 6 | **0.00%** 0 | **55.17%** 16 | **13.79%** 4 | **3.45%** 1 | **0.00%** 0 | 29 | 3.59 |

## Q5 For this section please answer these questions as you believe business executives and leaders as a whole reacted to QE.

Answered: 29 Skipped: 0

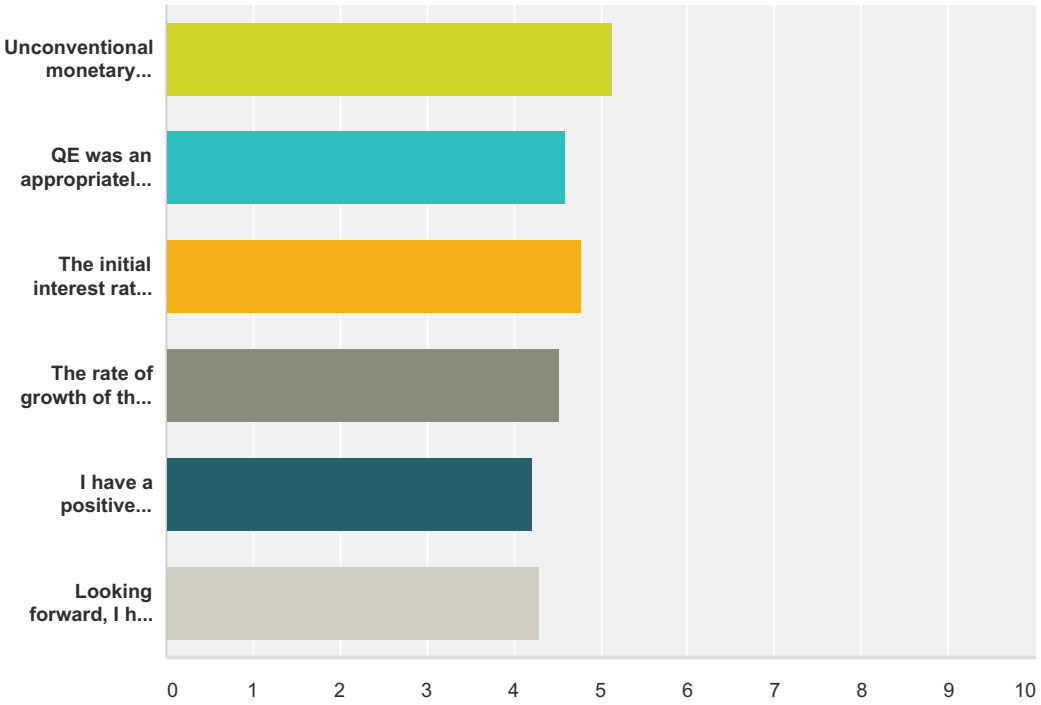



| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| Business executives intentionally held on to and maintained short-term liquid assets due to QE. | **0.00%** 0 | **0.00%** 0 | **0.00%** 0 | **6.90%** 2 | **34.48%** 10 | **55.17%** 16 | **3.45%** 1 | 29 | 5.55 |
| Companies contributed to an asset bubble in the current equity market. | **0.00%** 0 | **0.00%** 0 | **13.79%** 4 | **13.79%** 4 | **24.14%** 7 | **44.83%** 13 | **3.45%** 1 | 29 | 5.10 |
| Consumers contributed to an asset bubble in the current equity market. | **0.00%** 0 | **0.00%** 0 | **20.69%** 6 | **6.90%** 2 | **34.48%** 10 | **31.03%** 9 | **6.90%** 2 | 29 | 4.97 |
| QE impacted business leader's short-term decisions. | **0.00%** 0 | **0.00%** 0 | **0.00%** 0 | **0.00%** 0 | **31.03%** 9 | **51.72%** 15 | **17.24%** 5 | 29 | 5.86 |
| QE impacted business leader's long-term decisions. | **0.00%** 0 | **3.45%** 1 | **13.79%** 4 | **3.45%** 1 | **27.59%** 8 | **34.48%** 10 | **17.24%** 5 | 29 | 5.28 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| The Fed's forward guidance policy affected strategic planning for business leaders more than it had before the recession. | **0.00%** 0 | **3.45%** 1 | **0.00%** 0 | **6.90%** 2 | **24.14%** 7 | **51.72%** 15 | **13.79%** 4 | 29 | 5.62 |
| Executives boosted dividends and share repurchases to bounce back from the recession. | **0.00%** 0 | **10.34%** 3 | **10.34%** 3 | **37.93%** 11 | **17.24%** 5 | **17.24%** 5 | **6.90%** 2 | 29 | 4.41 |
| Improvements in consumer confidence were an important driver in the economic recovery over the past eight years. | **0.00%** 0 | **0.00%** 0 | **3.45%** 1 | **6.90%** 2 | **34.48%** 10 | **37.93%** 11 | **17.24%** 5 | 29 | 5.59 |
| Supply side factors played a bigger role than demand side factors in the economic recovery. | **3.45%** 1 | **0.00%** 0 | **20.69%** 6 | **37.93%** 11 | **24.14%** 7 | **10.34%** 3 | **3.45%** 1 | 29 | 4.24 |

## Q6 Please answer these questions based on the background information provided and your outlook for the future.

Answered: 29 Skipped: 0




| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Agree | Strongly Agree | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|
| Unconventional monetary policies were warranted to bring the U.S. economy out of the 2008 recession. | **0.00%** 0 | **0.00%** 0 | **10.34%** 3 | **6.90%** 2 | **48.28%** 14 | **27.59%** 8 | **6.90%** 2 | 29 | 5.14 |
| QE was an appropriately aggressive policy under the circumstances in 2008. | **0.00%** 0 | **13.79%** 4 | **17.24%** 5 | **10.34%** 3 | **24.14%** 7 | **24.14%** 7 | **10.34%** 3 | 29 | 4.59 |
| The initial interest rate change positively impacted the borrowing habits of corporations. | **0.00%** 0 | **10.34%** 3 | **6.90%** 2 | **17.24%** 5 | **34.48%** 10 | **20.69%** 6 | **10.34%** 3 | 29 | 4.79 |
| The rate of growth of the U.S. economy since 2008 would have been higher if a more conservative approach had been taken by the Federal Reserve. | **0.00%** 0 | **6.90%** 2 | **10.34%** 3 | **27.59%** 8 | **41.38%** 12 | **6.90%** 2 | **6.90%** 2 | 29 | 4.52 |
| I have a positive outlook for the long-term effects of QE. | **6.90%** 2 | **6.90%** 2 | **20.69%** 6 | **20.69%** 6 | **20.69%** 6 | **17.24%** 5 | **6.90%** 2 | 29 | 4.21 |
| Looking forward, I have confidence in the Federal Reserve's decisions. | **3.45%** 1 | **10.34%** 3 | **24.14%** 7 | **10.34%** 3 | **24.14%** 7 | **20.69%** 6 | **6.90%** 2 | 29 | 4.31 |