Importance of Language in Central Banks’ Management of Financial Markets: Creating Trends and New Vocabulary

Borislav Marušić¹
Branimir Kurmaić²

Keywords:
Central banks;
Management;
Financial markets;
Vocabulary;
High-frequency trading;
Semantics

Abstract: Language is often considered a living organism that changes with the times. It is a fact that the glossary of business English has grown in interesting ways in the age of day trading. The ever-growing importance of semantics in financial statements or, perhaps even more importantly, central bank statements seems to have coincided with the rise of the internet as the dominant way of information in the financial industry. Specially programmed algorithms scan Reddit boards in search of new trends, information is absorbed constantly, and trades are realized in seconds. In such an environment, officials’ statements have become more obtuse, the language more nuanced, and meanings blurred. The authors analyze the way central banks speak to the markets, how that impacts trends in the trading of financial securities, and provide an overview of some of the vocabulary impacted directly or indirectly by their actions that are now widely used by the financial media, institutions and day traders.

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 License (https://creativecommons.org/licenses/by-nc/4.0/) which permits non-commercial use, reproduction and distribution of the work without further permission.

1. INTRODUCTION

In the world of finance, communication has always been of vital importance. The reasons are obvious; publicly traded companies must cultivate proper communication with the markets in order to attract investors to invest in their ventures. On the other hand, public institutions and regulatory bodies must clearly lay out the rules the actors in markets abide by as investors shy from uncertainty. Never has this been more important than in today’s hyper-informed markets. The ever-growing importance of semantics in financial statements or, perhaps even more importantly, central bank statements seem to have coincided with the rise of the Internet as the dominant way of information in the financial industry and the evolution of the so-called high-frequency trading algorithms whose entire benefits are predicated on their speed of acting on new information. Social networks, especially Twitter, have grown to be just as or even more important than financial media used to be only twenty years ago. Specially programmed algorithms scan Reddit boards in search of new trends and meme stocks in order to front-run potential short-squeezes. Information is absorbed constantly, and trades are realized in seconds. Never before have statements from market participants been as impactful on the markets as they are today due to the sheer speed of the proliferation of information. Individuals inspire millions of dollars to exchange hands in a matter of minutes through 140-character tweets or, even more astonishing, memes. While most of these phenomena are all connected to the bigger picture of today’s financial markets and are important parts of it, in this paper, we have decided to focus on a subject that is perhaps given less attention in scientific research and the public discourse than its other parts; the way central banks communicate with the markets and, directly or indirectly, manage them, thus creating new trends as well as new vocabulary that is inevitably tied to them. In our research, we have mostly focused on what central bankers themselves say on this
subject, which they find of extreme importance, but have also included statements on this subject from the other side of the market, most notably the critics of the way central banks operate in this regard. In the first part, we establish the context of the discussion by laying out the way modern financial markets function, especially focusing on high-frequency trading algorithms and also mentioning the most popular means of communication including Bloomberg terminals and financial Twitter and Reddit. Secondly, we talk about the way central bankers themselves talk about their language and communication with the public, especially focusing on forward guidance, after which we cover some critics, mostly from the retail trading side. Lastly, we take a look at a specific example of central bank communication by focusing on the use of the word *transitory* by central bankers to characterize the rising inflation of 2021 and 2022.

2. THE HFT MARKETS

In order to discuss the way information in the form of central bank statements impacts markets in today’s financial system, it is first important to understand the modern investment markets in a technical sense. Many economists, as well as non-economists, still picture Wall Street trading as a crowd of people shouting trades on the floor of the New York Stock Exchange in New York. While the NYSE building still exists and does look like that for the most part, much of the trading volume actually happens in the server rooms next to or below the floor of the NYSE. In fact, as we learn from Shobhit, “during 2009-2010, more than 60% of U.S. trading was attributed to HFT.” (Shobhit, 2021)

HFT stands for high-frequency trading, which represents computer-assisted rule-based algorithmic trading which “uses dedicated programs that make automated trading decisions to place orders. AT split large-sized orders and places these split orders at different times and even manages trade orders after their submission.” (Shobhit, 2021) The main advantage of HFT is its speed and the ability to process very large trades in a very short amount of time and it is a rising industry in its own right. As we learn from Grand View Research’s report, the global high-frequency trading server market size was valued at “USD 387.9 million in 2020 and is expected to register a compound annual growth rate (CAGR) of 3.5% from 2021 to 2028” and it points out that “the need for Ultra-Low Latency (ULL) in the trading ecosystem and the advancements in quantum computing in financial services are expected to drive the market growth over the forecast period.” (High-frequency Trading Server Market Size Report, 2021-2028, n.d.) The speed is such an important aspect of this that companies have even resorted to repurposing microwave communication towers to improve the speed at which their computers communicate with the stock exchanges because “microwave technology has gotten way ahead of the competition as it can convey data in almost half the time which is critical in squeezing profit from fleeting and tiny price discrepancies in assets traded globally.” (Myers, 2015)

It is important to note that these trading algorithms, while programmed with specific instructions relative to the trading strategies of the company in question, cannot trade anything without the input of information relevant to the securities the company is interested in. As we learn from Donald Keim (Keim, 2015) from the University of Pennsylvania, high-frequency traders “do not just look at order flows and run ahead of them to gain an edge; they also try to get ahead of market-moving news as well.” In his article, he mentions a paper titled, “Media-Driven High Frequency Trading: Evidence from News Analytics” by Wharton finance professor Donald Keim, INSEAD banking and finance professor Massimo Massa and INSEAD doctoral student Bastian von Beschwitz. In the paper, as he states, the authors found out that “the use of
Importance of Language in Central Banks' Management of Financial Markets: Creating Trends and New Vocabulary

lightning-fast news analysis tools, while legal, combined with high-frequency trading, can have a 'significant' impact on stock returns and trading volume beyond the influence of the news content itself.” (Keim, 2015)

It is evident from these findings why the use of language by financial institutions would be very strictly controlled and why words uttered by central bankers are carefully chosen; one can never be sure exactly how the HFT algorithms might compute a speech given by a central bank governor; bullishly or bearishly. This was not always the case, but today it is and numerous statements from financial professionals confirm this, such as the one from trading manager Ming Jia who once told Marketplace: “We analyze Fed speeches like an eighth grader analyzes, like, text messages”, adding that, “every single word matters.” (Nguyen, 2019)

This kind of analysis of the language used by central banks is best demonstrated through trading strategies described with new vocabularies such as FOMO³, MOMO⁴, BTD⁵, or TINA⁶.

Traders use many different sources of information as feeds for HFT algorithms: Bloomberg terminal, financial Twitter posters and even presidents of the United States, as well as financial subreddits such as WallStreetBets which became (in)famous in early 2021 due to the “Gamestop short-squeeze”. However, the most important news for the entirety of the market is without a doubt that coming from the Federal Reserve Board, the European Central Bank, and other central banks of the world.

3. CENTRAL BANKS AND COMMUNICATION

In their working paper on how central banks should communicate with the markets and the public in general, Ehrmann and Fratzscher (2005) state right from the start that “central banks have direct control only over a single interest rate, usually the overnight rate, while their success in achieving their mandate – whether the focus is on price stability or economic activity – requires that they are able to influence asset prices and interest rates at all maturities,” (p. 6) and that “effective communication as much as credible policy actions are of fundamental importance for achieving these objectives.” (Ehrmann & Fratzscher, 2005, p. 6) While this paper was written

³ As per Merriam-Webster, FOMO is “fear of missing out: fear of not being included in something (such as an interesting or enjoyable activity) that others are experiencing “. (https://www.merriam-webster.com/dictionary/FOMO) In the context of finance, FOMO represents a fear of missing out on a wave of incredible percentage gains in a bull market. While the term has existed before unrelated to finance, it has lately been used almost exclusively in a financial context. It is often used to describe frantic buying by retail traders and warn of possible dangers.

⁴ MOMO represents momentum investing which involves “going long stocks, futures, market exchange traded funds (ETFs), or any financial instrument showing upward-trending prices and short the respective assets with downward-trending prices.” (https://www.investopedia.com/terms/m/momentum_investing.asp) BTD is an acronym for “Buy the dip”, which Investopedia describes as “purchasing an asset after it has dropped in price. The belief here is that the new lower price represents a bargain as the "dip" is only a short-term blip and the asset, with time, is likely to bounce back and increase in value.” (https://www.investopedia.com/terms/b/buy-the-dips.asp) The concept of “buying the dips” is directly tied to the existence of a so-called “FED put”, meaning the general belief that the Federal Reserve Bank of the United States will always manipulate the financial markets in the case of a serious downturn and that, in the long run, “stocks only go up”.

⁵ There is no alternative," often abbreviated as "TINA," is a phrase that was first used by Herbert Spencer and later became a slogan for British Prime Minister Margaret Thatcher in the 1980s, while today, “it is often used by investors to explain a less-than-ideal portfolio allocation, usually of stocks, because other asset classes offer even worse returns. This situation and the subsequent decisions of investors can lead to the "TINA Effect" whereby stocks rise only because investors have no viable alternative.” (https://www.investopedia.com/terms/t/tina-there-no-alternative.asp)
17 years ago, this notion only grew in acceptance among central bankers all over the world since and, with the rise of the Internet, has evolved in the way it is applied in communicating with the public. This is evident from the number of speeches given by central bankers at various conferences. For example, between September 26 and October 7 of 2022, members of the Federal Reserve Open Market Committee held 31 speeches. Not all of them were directly tied to the monetary policy of the Federal Reserve, but many of them commented on current and/or future monetary policy and continue to do so regularly.

Of course, while the sheer number of speeches is an indication of how important communication is to central bankers, it tells us little about how they actually speak, which may be even more important than how often they speak. Particularities of language matter as they affect market behavior in perhaps unexpected ways. For example, Chen (2013) in his research on the effect of language on economic behavior states that his findings “are largely consistent with the hypothesis that languages with obligatory future-time reference lead their speakers to engage in less future-oriented behavior.” (p. 31) Galardo and Guerrieri from the Central Bank of Italy have undertaken fascinating research on the frequency of use of future tense verbs in monetary policy statements and the results “from the econometric analysis have shown that using a future tense that is perceived by the public as a commitment in pursuing a particular monetary policy stance is indeed effective in shaping future short-term interest rates expectations.” (Galardo & Guerrieri, 2017, p. 34)

This use of future tense is directly connected to a method central banks use in their communication with the public; forward guidance or, put differently, management of expectations. Forward guidance, in the words of the US Federal Reserve, is “a tool that central banks use to provide communication to the public about the likely future course of monetary policy.” (Federal Reserve System, n.d.) We consider it important to note the use of the word “likely” in that statement from the US FED website due to how it adds ambiguousness, but more on that a bit later. Seeing as how financial markets are considered “forward-looking” and that, as we have already established earlier in the paper, in investing today time is of the essence more than ever before, it is no wonder that “when central banks provide forward guidance, individuals and businesses will use this information in making decisions about spending and investments” (Federal Reserve System, n.d.) as quickly as possible.

It is understandable and an established fact that investors do not like uncertainty, which is why central banks have a vested interest in calming the markets in times of distress, especially by providing rather optimistic projections about the future. While no central bank states this clearly in their mission, it is obvious that doing anything else would make their job of managing markets and expectations harder and would essentially be counter-productive. With this being rather obvious, it is no wonder that some commentators raise a controversial question; do central bankers always say the truth in order to calm the markets? As the example of “transitory” inflation of 2021 shows, the answer is rather complicated.

4. THE CASE OF TRANSITORY INFLATION OF 2021

Some critics of central banks and their officials attack them very strongly, sometimes even accusing them of outright lying to the public in order to keep the markets calm and orderly. Anatole Kaletsky famously said in an interview for CNBC that: “Central bankers have a license to lie.” (CNBC, 2015) This, as we learn from George DeMartino, is not an unusual stance when it comes to how people view economists in general. In his paper, titled “Should Economists Tell
the Truth? Prosocial lying, Paternalism, and the Ben Bernanke Problem” (DeMartino, 2020), he comments on Dani Rodrik’s statement that there is a large “disconnect between the seminar room, where economists acknowledge and engage openly with the limitations to and nuances of their science, and public forums, where they oversimplify what their models tell them and exaggerate their capacities so as to alter public perceptions” (p. 3) by saying that the economic profession “lied to the public so as to promote the success of a regime that the profession believed would generate substantial harm to large numbers of people.” (DeMartino, 2020, p. 3) While this might not be unexpected behavior for a private company, it would surely be for a public institution, especially one responsible for maintaining the entire financial system of a country. To answer the question of whether central bankers lie to the public is both simple and complicated. The simple answer is no, they do not (for the most part), but the complicated part, as we will see in the following example, lies in the ambiguity of their communication with the public. The example we have chosen is a rather recent one that concerns the prevalent characterization of rising rates of inflation that started in 2021 in the west as transitory by all of the most influential central banks in the west: the FED, CBOE, ECB, and even the Croatian National Bank.

When price inflation started to rise in 2021, Jerome Powell of the Fed famously stated it was “transitory” and that therefore it was not necessary for central banks to act quickly to stop it, and he was later followed by most western central bankers. Marriam-Webster defines the meaning of the word transitory as follows: “Of brief duration, tending to pass away”. (Merriam-Webster, 2022) However, it is not exactly clear what one would mean by saying elevated inflation is transitory. Would it mean the elevated prices would come back down after a short period? If so, how long is this transitory period of elevated prices expected to last? Is 2 years considered short or long? Much confusion arose in financial circles regarding this characterization of inflation. As Rachel Siegel points out in her article for the Washington Post, FED officials “have worked to clarify that their meaning behind ‘transitory’ inflation is quite different from the public’s.” (Siegel, 2021) Indeed, as DeCambre reports, Powell later on explained that their intention behind using the word “transitory” was to convey their stance that heightened rates of inflation will come down in a relatively short period, but that it doesn’t mean current prices will decline, which would imply deflation, but rather that future inflation will slow back down to 2 or 3 percent:

The concept of “transitory” is really this: It is that the increases will happen. We’re not saying they will reverse. That’s not what “transitory” means. It means that the increases in prices will happen, so there will be inflation but that the process of inflation will stop so that—but that there won’t be further—when, when we think of inflation, we really think of inflation going up year upon year upon year upon year. That’s inflation. (DeCambre, 2021)

Finally, Jerome Powel in testimony in front of the Senate Banking Committee, declared it “high time to retire the word “transitory,” which has become a vexation for the U.S. central banker and an inscrutable piece of Jabberwocky to those watching inflation touch a roughly three-decade high.” (DeCambre, 2021)

In our opinion, it cannot be outright said that central banks either lied or even made a mistake by stating that inflation is transitory, simply due to the fact that the meaning is so ambiguous that the standards needed to determine it does not exist. It may very well have been a mistake from a PR perspective, meaning that it opened the Fed to some criticism from the financial world, but in the end, it did accomplish one important thing; it soothed the markets at an uncertain time which, can be said, is one of the most important objectives of central bank communication with the markets in general.
5. CONCLUSION

The subject of this paper is extremely wide and can be approached from multiple different angles, but from the perspective of management, it is obvious that the main function of central bank communication with the markets is to ensure their orderly functioning, reduce panic, and maintain at least a somewhat positive outlook for the future. Aside from setting interest rates, communication with the markets is a central bank’s most important tool. As we have demonstrated in this paper, the language used in this process is of extreme importance, not only in the types of verbs used in statements, or simple semantics but also tone and ambiguity. As the example of transitory inflation shows, the use of a carefully selected word can shift the conversation entirely and at the same time calm the markets regardless of whether the statement in question turns out to be a correct view of the markets at a later date. In our view, a central bank cannot and should not be expected to announce forthrightly that it expects a severe economic downturn even when it does, as that would surely cause the downturn to be even worse and come even sooner. If that is so, then central banks must be ambiguous. The fact that central bankers are constantly trying to reach out more to regular citizens also forces them to use less complicated terminology in their communications in order to be able to successfully communicate with the wider public. All of this has an effect on the language they use in communication and subsequently changes the language used in the rest of the markets as investors conform with the discourse set by the banks. This paper only scratches the surface of this subject, but we hope to bring more attention to the question of central bank communication with the public in order to encourage more in-depth research as we hold this subject’s importance warrants it.

References


Additional reading