

How Bank Indonesia Communicate its Monetary Policy During COVID-19 Period

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The Central Bank has been cautious in communicating its monetary policy press releases and monetary policy reports during the COVID-19 outbreak. Blinder et al. (2022) reported that the central bank has become a source of concern during COVID-19 as a result of changes in the central bank's mandate, complex monetary policies, and monetary policy decisions that trigger public or market decision-making. This is because information published by the Central Bank, such as survey data, reports, press releases, press conferences, and interviews, has an impact on its stakeholders.

Following the Asian Economic Crisis in 1998, Bank Indonesia has strengthened its strategic communication by employing the principles of transparency and accountability as part of the policy instruments³. Since Bank Indonesia adopted the inflation targeting framework, it has implemented this technique to ensure that the information provided to the public may assist the central bank in achieving its main objective. Despite difficulties like fostering communication and creating multilayered communication strategies, Blinder et al. (2022) said that increasing public communication can foster effectiveness, transparency, and accountability. Another study by DF. Unisal and Garbers found that clear and timely communication can boost the effectiveness of central banks' communication while also preserving their credibility.

During COVID-19, stakeholders tend to seek information through various channels owned by Bank Indonesia, such as press releases and infographics on Bank Indonesia's home page and various social media platforms, while reports and more detailed data are available on the official website. Therefore, the focus of our study is to investigate how effective Bank Indonesia in communicating its policies in maintaining the market and public perspective, especially those related to the Consumer Survey (CS) and Retail Sales Survey (RSS). The consideration to learning the communication of those surveys is that these surveys describe the condition of household consumption, in which household consumption accounts for more than 50% of Indonesia's GDP share. We conducted an analysis to see which had the most hits and likes on websites and social media, especially before COVID-19, up until now. We also use NOISE (Needs, Opportunities, Improvements, Strengths, Exceptions) analysis to see what strengths Bank Indonesia already has and what they need to do to encourage communication and develop layered communication strategies. To result of sentiment analysis confirmed the success of Bank Indonesia in building and maintaining stakeholders' optimism toward economic conditions. Even if the COVID-19 outbreak seems to have exacerbated economic conditions, Bank Indonesia's press releases are generally well received by its stakeholders. This implies that Bank Indonesia continues to successfully shape stakeholders' expectations while maintaining its credibility. The sentiment analysis also suggests that the number of positive sentiment dominate the negative ones during COVID-19 period which means that Bank Indonesia success to manage and deliver optimism tone towards its stakeholders during the COVID-19 and economic recovery period.

Keywords: Central Bank Communication, Channels of Communication

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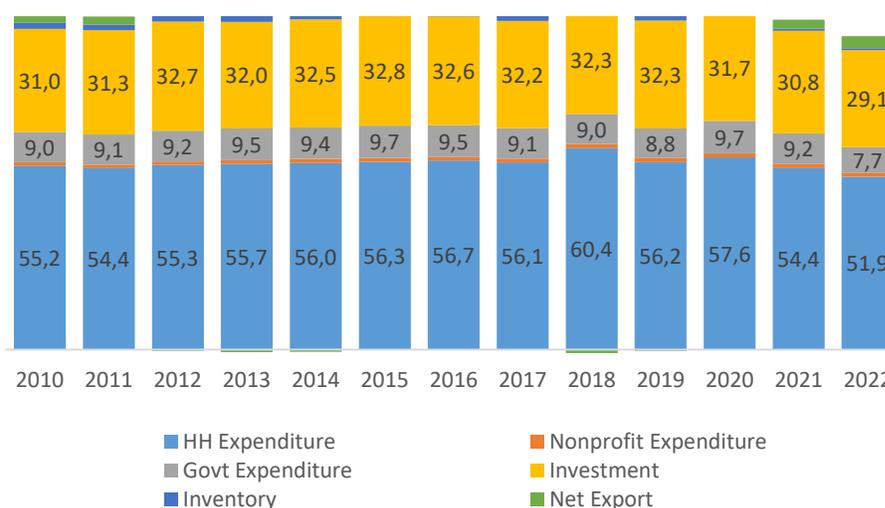
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³ <https://www.bi.go.id/id/fungsi-utama/moneter/default.aspx>

1.0 Introduction

The performance of Indonesia's Gross Domestic Product (GDP) is strongly influenced by household consumption with a portion of $\pm 50\%$ (Graph 1). The share of household consumption against GDP since 2018-2022 on average is 56.1% and contributes an average of 1.55% (yoy) to the average growth of GDP 2018-2022 of 3.43% (yoy). Therefore, the availability of credible household consumption prompt indicators becomes very important to support various macroeconomic assessments conducted by Bank Indonesia, as well as external, among others, BPS as one of the indicators used as a reference in the preparation of GDP. In order to capture a picture of household consumption and has a prompt indicator, Bank Indonesia conducted a Consumer Survey and Retail Sales Survey.

Graph 1 GDP Expenditure

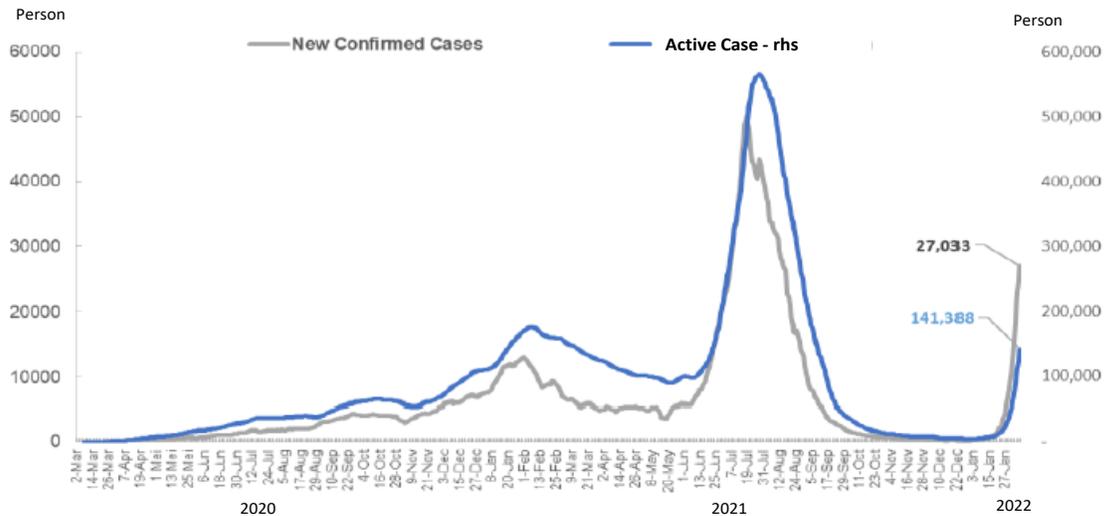


Source: BPS

However, the COVID-19 pandemic has brought changes from all fronts. The impact of COVID-19 on the Indonesian economy in the first semester of 2020 was very significant. The pandemic that has spread very quickly to all regions of Indonesia since early March 2020 (Graph 2) has resulted in the implementation of tidiness policies, including the mobility restricted. Restrictions on mobility led to a sharp decline in community economic activity. The decline in performance occurred in all components, both household consumption and government and private investment.

The significant impact of COVID-19 on the Indonesian economy can be mitigated by strengthening policy synergies between the Government, Bank Indonesia and other related institutions. The domestic economy, which had weakened significantly in the first semester, began to recover in the second semester, with maintained domestic financial system stability. This positive development is inseparable from the influence of the policy synergy of the Government, Bank Indonesia, and related authorities which are supported by a strong legal basis. The accommodative policy mix and Bank Indonesia's commitment to meeting financing needs for the 2020 State Budget have succeeded in supporting national economic recovery while maintaining macroeconomic and financial system stability.

Graph 2 COVID-19 Case in Indonesia



Source: Gugus Tugas COVID-19 (data until Jan 27th 2022)

With the increasing need for communication, there is a change in the direction of communication policy. It was believed that monetary policy stances should always be masked, and the authorities should say as little as possible in the past. These days, the central bank communication is not cryptic anymore as they regularly communicate their macroeconomic conditions, policy frameworks, objectives, forecasts on inflation and output, and motivations for policy decisions (Tobias and others, 2018). After the global financial crisis (GFC) and its aftermath, central bank communication, in particular forward guidance, became even more important. As a result, many central bank are now focusing more on their communication policy.

Recently, accountability, transparency and managing private sector expectations are crucial for an independent central bank, and communication is an important tool for achieving these goals (Blinder and others, 2008). Central banks transparency augments policy credibility and predictability, as well as enables markets to respond more efficiently in response to policy decisions. If central bank communicates its economic outlook and policy stances more transparently, the stakeholders are less likely surprised by the monetary policy decisions which causes smooth movements in asset prices and reduces the likelihood of financial distress (Pescatori, 2018).

Central Banks' communication strategy can be viewed from two perspectives: the short-term and long-term management of expectations through predictable monetary policy. An effective communication strategy can involve giving signals of monetary policy tendencies prior to short-term monetary policy decisions. In this way market uncertainty before the decision falls, and the movements of markets are shaped by the signals provided. However, new developments that cause revisions to central bank assessments and actions that differ from the initial signals can also cause volatility on markets. For this reason the signaling has to be seen as a conditional undertaking (Issing, 2005, 70).

Communication challenges significantly vary across countries, reflecting different economic and institutional environments. In response to the challenges and opportunities, central banks in

advanced, emerging and developing economies have been improving their communication. Greater attention has been devoted to understanding what, to whom, and how to communicate. The evolution in communication strategies and instruments has been accompanied by efforts to track the impact of communication and the results obtained. Does it make economic sense to have high frequency communication with the general public? It does to the extent that expectations are important for economic dynamic and communication can aid expectations management (Blinder 2009, Woodford, 2011). In Standard economic environments, therefore central banks wishing to control inflation can benefit from using communication to share any private information and influence inflation expectation.

In keeping with the rising amount of communication among central banks, a growing computerized text-analysis is nowadays also used to evaluate the tone of the media coverage. The central bank can use this information to assess the effectiveness of a press release delivery as well as learn about the media's opinions. For instance, if there is a positive tone in the press conference or press release, the media coverage of the event should also have a favorable tone. If not, the discrepancy would indicate that there is a communication bottleneck in the central bank's framework and channels. Often, metrics are created by counting certain words that are used to differentiate between positive and negative language.

While reports and more in-depth data are available on the official website, stakeholders frequently seek information during COVID-19 through various channels owned by Bank Indonesia, such as press releases and infographics on the home page of Bank Indonesia and various social media platforms. In light of this context, the goal of our study is to determine how effective Bank Indonesia communicates its policies to the public and market while retaining both of these perspectives, particularly those related to the Consumer Survey (CS) and Retail Sales Survey (RSS). Specifically, we apply sentiment analysis technique to study Bank Indonesia communication strategy during the period 2019 – 2020.

There are five sections in the paper. In the next section, we review relevant literature on the central bank communications and application of text mining techniques to central bank communication. In the third section, the sentiment analysis procedure adopted as well as the data used for the empirical investigation are discussed. The results are presented in section four while section five concludes the paper.

2.0 Review Literature

In the past decade, the environment for monetary policy has become more challenging in many countries, reflecting slower economic growth, lower real interest rates, and a renewed attention to the interdependence of monetary and financial stability (Bernanke 2012). Central banks have adapted in part by stepping up communications. Although central banks have on the whole been clearly heard by financial markets and economists, the broader public has hardly been reached (Haldane and McMahon 2018). Many central banks are doing more to explain their policies to a broad public to enhance understanding and support. This is not an easy task. Challenges include greater noise on social media and the fragmentation of audiences in internet echo chambers. In some countries, media capacity to report on the complexities of monetary policy is still being developed while, in others, the market for economic and financial news is too small to sustain high quality reporting. A growing

number of central banks are trying to reach their audience directly. Communications are being increasingly tiered, with products at different levels of technicality depending on the targeted audience.

Understanding the relative qualities of each instrument will be essential to the success of the communications strategy in order to guarantee that the appropriate material reaches the intended audience and has the intended impact. Regarding their most common uses, a variety of communication channels are available, including press releases, press conferences, websites, social media, interviews with media, regular op-ed pieces and columns in media, meetings with analysts and experts, background briefings/seminars for journalists, public speeches & lectures, and newsletters (Cashiragi & Perez, 2022).

In order to prevent information overload that could impair the public's ability to make logical decisions, Naghdaliyev (2011) argues that central banks should have defined communication objectives. While the proper management of expectations is the main objective, the intermediate goals of central bank communication must necessarily include accountability, credibility, and transparency. Naghdaliyev (2011) asserts that among the three intermediate goals, credibility is the most important since it is dependent on credibility for the central bank to effectively manage expectations. Consequently, one of the reasons why communication has evolved into a significant component of monetary policy is due to the critical relationship between central bank communication and central bank credibility. As a result, a growing body of work has concentrated on the evaluation of central bank communication tactics.

Exceptional measures taken by central banks in response to the COVID-19 shock raise greater challenges for and demands on monetary policy communication. As many countries are facing enormous blows to output and employment, and some under current account and exchange rate pressures, central banks have lowered their policy rates considerably and turned to additional or new measures, such as quantitative easing (QE), foreign exchange intervention, and debt monetization in some instances. Any such crisis measures, however, necessitate clear and timely communication so as to ensure the public understanding and acceptance of these measures, shape market expectations, and increase their effectiveness, without jeopardizing the central bank's credibility. Ultimately, the need for effective communication becomes more acute the more unusual or extraordinary the chosen measures are. This note focuses on central banks' continual communication of the crisis response in the context of monetary policy.

A few studies have explored the communication methods of some central banks before and after the global financial crisis (GFC). To analyze the linguistic substance of their communication before and after the 2008 Global Financial Crisis, Kahveci and Odabas (2016) examined monetary policy announcements from several central banks including the Fed, ECB and CBRT. Their findings demonstrated that the Fed's policy announcements in the wake of the crisis reflected a less upbeat and more confident tone, while the tones of the policy statements released by the ECB and CBRT remained unchanged. Furthermore, Siklos (2013) also examined whether the linguistic content of central bank communication has altered since the GFC in a study of the Reserve Bank of Australia, the Bank of Canada, the Reserve Bank of New Zealand, the Bank of England, and the U.S. Federal Reserve. Using text mining algorithms to analyze the monetary policy documents released by these central banks, it was discovered that during the crisis, concerns about financial stability and economic uncertainty were highly prevalent.

3.0 Data and Methodology

This section describes the textual data used for our analysis. In addition, it enumerates the data processing steps as well as the automated text mining procedure employed.

3.1 Data

The textual data used for our analysis was sourced from the retail sales and consumer surveys' communiques published by several Indonesia online news. Each release of the survey results presents the main points of survey results and the additional information that support the survey results.

3.2 Sentiments Analysis

According to Miner et al. (2012), sentiment analysis can be used to identify the opinions and emotional states of individuals who are represented in a textual data. In essence, the process of sentiment analysis is classifying a document's opinions as positive, neutral, or negative. In order to examine the evolution of monetary policy attitudes as reflected in the policy communiques, some studies employs such approach. In this study, to analyze the sentiment analysis of retail sales and consumer surveys press releases, we use the methodology in Binette and Tchegotarev (2019) calculated as follows:

$$MPSS = \frac{N_{positive} - N_{negative}}{N_{total}} \times 100$$

where $N_{positive}$ denotes the number of words expressing positive sentiments, $N_{negative}$ is the number of words expressing negative sentiments, and N_{total} is the total number of words in the document. In this study, any positive sentiment term used in a document takes the value of 3 while a negative sentiment term takes a value of 1 and the neutral sentiment takes the value of 2. The equation above implies that a value of $MPSS > 0$ denotes the positive sentiments, whereas $MPSS < 0$ denotes the negative sentiments. In this study, instead of using the term of $MPSS$, we use the net score sentiment. The net score sentiments enables us to derive useful insights regarding the media's perception on the press releases disseminated by Bank Indonesia.

3.3 NOISE (Needs, Opportunities, Improvements, Strengths, Exceptions) Analysis

NOISE analysis is an alternative to SWOT analysis. NOISE analysis allows decision makers to analyze current situation and how to create improvement to their strategy. According to



Source: <https://fourweekmba.com/noise-analysis/> and Mike Cardus

4.0 Results

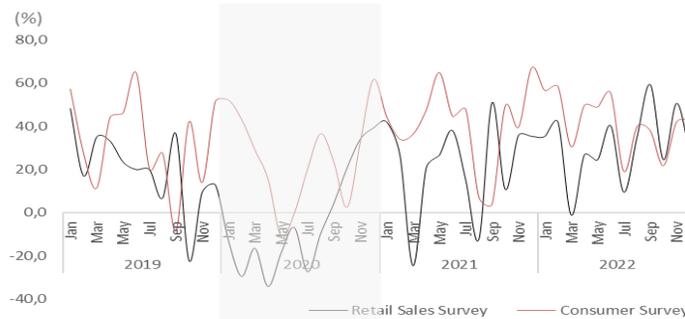
In 2020, stakeholders appreciated the various efforts to strengthen the communication content and channels, as reflected by a Communication Efficacy Index of 5.10 on a scale of 1-6. During the same period, Bank Indonesia also issued 372 press releases and 3,785 social media posts across various social media channels, including Instagram, Facebook, YouTube, Twitter and the BI Talk podcast. In terms of output, the press releases made 27,605 news headlines in the mass media, with 1,249,286 social media engagements from 1.39 million across Bank Indonesia's social media channels.

4.1 Sentiment Analysis

Binette and Tchegotarev (2019) suggested that sentiment analysis could be done by computed net sentiment score. The computed net sentiment enables us to derive useful insights regarding the stakeholders perception on the press releases disseminated by Bank Indonesia. In Graph 3, we show the plot of the computed net sentiment score for both retail sales and consumer surveys during 2019 – 2020. Specifically, the average net sentiment score for both surveys in the 2020 period was -4.7% and 20% respectively, implying that the stakeholders sentiment was less inundated by policy uncertainties generated by various global and domestic economic shocks during COVID-19 period. The sentiment analysis, in particular for consumer and retail sales surveys, confirmed the success of Bank Indonesia in building and maintaining stakeholders' optimism toward economic conditions. The figures show that even if the COVID-19 outbreak seems to have exacerbated economic conditions, Bank Indonesia's press releases are generally well received by its stakeholders. This implies that Bank Indonesia continues to successfully shape stakeholders' expectations while maintaining its credibility.

Over 2020–2022, Bank Indonesia will consistently uphold stakeholders' optimism by upholding the narrative in press releases, but due to a number of outside variables that are beyond its control, positive perception of Bank Indonesia's official announcements is not always high. The COVID-19 outbreak's potential risks for the economy are reflected in the modest sentiment ratings for retail sales and consumer surveys that were obtained in 2020. In September 2021, when the economy began to improve due to a low number of COVID-19 cases, the trend toward positivity was on the rise. The net sentiment scores, however, display a low level score when the economic activity was once again disturbed by the social distance regulation as COVID-19 cases increased. Afterwards, the survey communique expressed net positive sentiments when the stability was seen in the domestic economy.

Graph 3 Net Sentiment Score

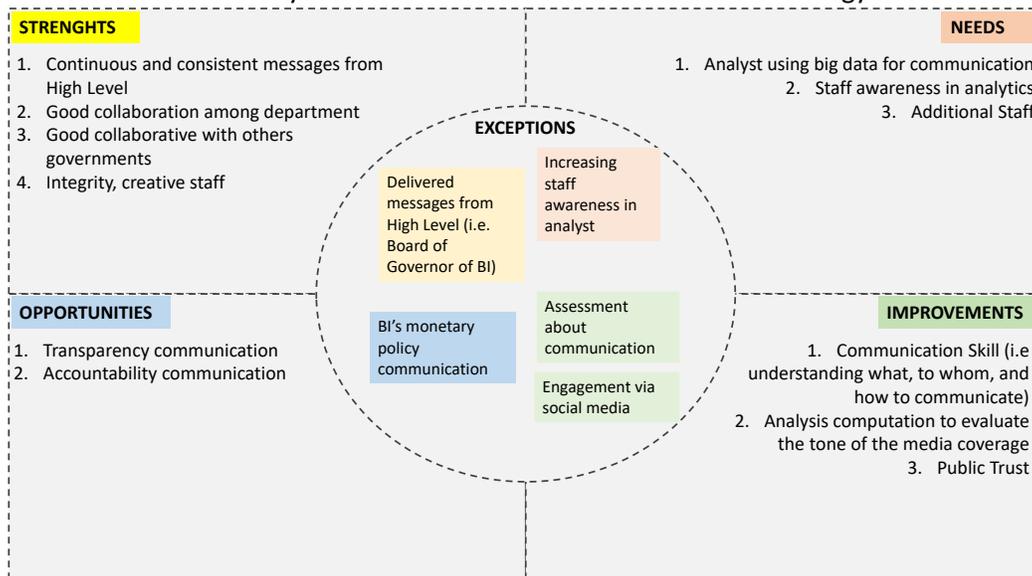


%: Net sentiment score

Based on graph 2, it is also known that the number of positive sentiment dominate the negative ones during 2019 - 2022. This further shows that Bank Indonesia managed to deliver optimism tone towards its stakeholders during the COVID-19 and economic recovery period. Furthermore, it can also be seen that the communication tone of Bank Indonesia is almost always followed by the tone of conveying news to the public by media news outlets. Hence, it can be said that Bank Indonesia is being able to achieve its three intermediate goals in communication, specifically communication credibility. Since Bank Indonesia has credibility in its communication, Bank Indonesia can effectively manage expectations.

4.2 NOISE Analysis

The result of NOISE analysis on Bank Indonesia's communication strategy are



4.3 Bank Indonesia Communication Policy During COVID-19 Period

Communication is an effective instrument to guide expectations, increase assurance and provide stakeholder understanding concerning the policies instituted to achieve a target. In 2020, Bank Indonesia focused its communication strategy on providing stakeholder guidance amidst extraordinary economic circumstances, as well as to support government economic recovery efforts.

The communications strategy was implemented by strengthening the key takeaways, or messages, through a range of channels/products in order to effectively mitigate the impact of uncertainty caused by the COVID-19 pandemic and build economic recovery optimism. Message consistency in the right context through diverse channels can support policy communication effectiveness and strengthen Bank Indonesia credibility.

The communication strategy and framework are key to facing dynamic changes in the strategic environment caused by global and domestic economic factors as well as overcoming the increasingly complex challenges attributable to communication technology development in the digital era, including fake news, hoaxes, netizen journalism and post-truth. Effective communication to guide expectations and build optimism during the pandemic has been consistently implemented through various channels as follows:

1. Weekly and biweekly virtual Media Briefings held by the Governor of Bank Indonesia (GBI) during the panic caused by rapid COVID-19 transmission, with 11 Media Briefings held between 26th March 2020 and 5th June 2020. Perspicuous, continuous and consistent messages were conveyed by the Governor without equivocation in order to guide market expectations and public expectations in response to the deepening impact of the COVID-19 pandemic. Media briefing concerning latest economic development by the Governor
2. Strengthening the message when disseminating publications and press releases concerning new policies/economic indicators/statistical data, including consumer and retail sales survey, through all communication channels, thereby building national economic recovery optimism. The press releases included weekly Rupiah stability indicator developments, latest economic developments and Bank Indonesia measures to contain COVID-19, as well as press releases concerning operational activity and public services at Bank Indonesia during the pandemic.
3. Expanding Bank Indonesia's social media presence to strengthen message delivery in terms of guiding expectations and building optimism.

5.0 Conclusion

This research show some Bank Indonesia Communication Policy During COVID-19 Period:

1. Bank Indonesia communication through various channels such as official website (i.e. press releases, infographics, reports), social media platform (i.e Twitter, Facebook, Instagram, Youtube), and interviews (television).
2. The sentiment analysis, in particular for consumer and retail sales surveys, confirmed the success of Bank Indonesia in building and maintaining stakeholders' optimism toward economic conditions. Even if the COVID-19 outbreak seems to have exacerbated economic conditions, Bank Indonesia's press releases are generally well received by its stakeholders. This implies that Bank Indonesia continues to successfully shape stakeholders' expectations while maintaining its credibility.
3. The number of positive sentiment dominate the negative ones during 2019 - 2022. This shows that Bank Indonesia managed to deliver optimism tone towards its stakeholders during the COVID-19 and economic recovery period.
4. The communication tone of Bank Indonesia is almost always followed by the tone of conveying news to the public by media news outlets. Hence, it can be said that Bank Indonesia is being able to achieve its three intermediate goals in communication, specifically communication credibility. Since Bank Indonesia has credibility in its communication, Bank Indonesia can effectively manage expectations.

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