

# Fixed Income Research

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MALAYSIAN RATING CORPORATION BERHAD  
(364803-V)

## *MPC Statements:*

### *Readability, Complexity & Predictability Analysis*



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*“I know you think you understand what you thought I said but I'm not sure you realise that what you heard is not what I meant”*

*“If I turn out to be particularly clear, you've probably misunderstood what I've said.”*

*- Alan Greenspan, Former Fed Chief*

## In a nutshell

- Monetary policy statements are essentially statements on the assessment of the economy, interest rate decisions and policy guidance commonly issued by central banks after their regular monetary policy meetings. One reason for publishing the statements is to fulfil the demand for greater accountability and transparency following the increasing autonomy of central banks. In addition, clear communication by central banks is important as it can reduce uncertainty facing economic agents. Not only does it enhance the public's understanding of the objectives of policy and the decision-making process, it also guides market expectations. It is generally believed that effective communication by a central bank would benefit the public by helping them to make better forecasts of the economy and to understand the current state of the economy.
- The structure and the trends of the monetary policy statements of the United States Federal Reserve (US Fed) have changed over time. One study reveals that the number of words in the Federal Open Market Committee (FOMC) statements increased to over 400 per statement during Chairman Ben Bernanke's tenure by January 2009 from merely 210 words on average during Chairman Alan Greenspan's tenure. Under Chair Janet Yellen, the average number of words increased further to 800 per statement. In addition, there is a rising trend of complexity of the statements as evidenced by higher reading grade levels which suggest that readers would require an education level of about three years beyond a four-year college degree to understand the statements.
- Similarly in Malaysia, the number of words and paragraphs in Bank Negara Malaysia's Monetary Policy Committee (BNM's MPC) statements (which is equivalent to the US' FOMC statements) has been rising over the years in tandem with the greater amount of information disclosed by the committee. It was also found that historically, the statements were generally longer when there were changes in policy decisions. The number of words in the MPC statements was also higher prior to and during a crisis period (i.e the Global Financial Crisis, or GFC, and the euro crisis). The higher number of words during these periods was attributed to the increase in the number of sentences as the committee disclosed more information.
- In general, BNM's MPC statements provide relatively clear messages on the central bank's possible future policy actions. This has led to increasing predictability of the future direction of interest rates. Carefully crafted sentences were normally found to provide some 'hints' on the future direction of the Overnight Policy Rate (OPR). The crucial part of the MPC statement is none other than the concluding paragraph, which in most cases provides details of the central bank's concerns and the likely actions they will take in the near term.
- Our analysis indicates that based on a long-term trend, there is a decreasing score of reading ease and increasing education level needed to understand BNM's MPC statements over a period of 11 years. This implies lower readability and greater complexity of MPC statements, especially up to mid-2010. The degree of complexity was notably higher during the GFC period as reflected in the reading ease score that corresponds to the level of postgraduate education. Notwithstanding this, the trend has changed slightly since then as evidenced by the rising reading ease index and lower complexity associated with the statements after 2010.

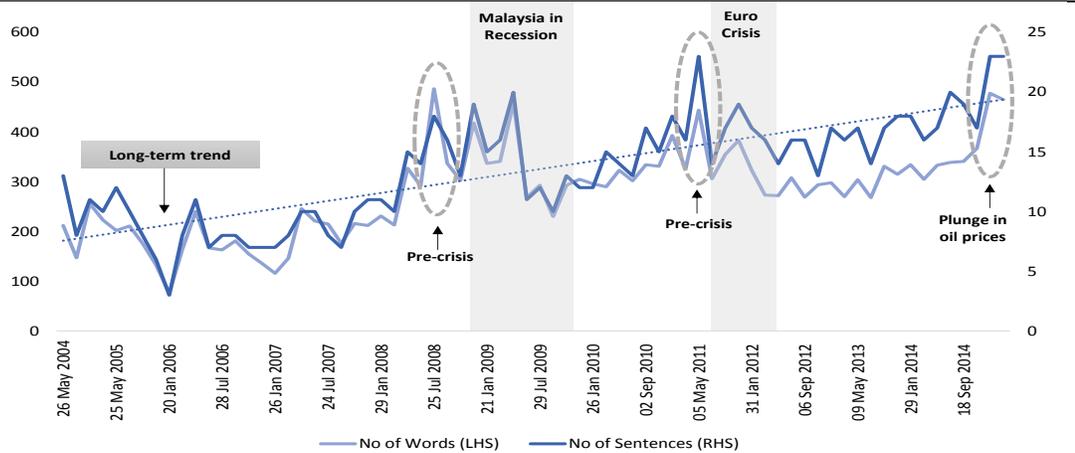
## Introduction

- Monetary policy statements are essentially statements on the assessment of the economy, interest rate decisions and policy guidance commonly issued by central banks after their regular monetary policy meetings. They are issued to fulfil the demand for greater accountability and transparency following the increasing autonomy of central banks. In addition, clear communication by central banks is important as it can reduce uncertainty facing economic agents. Not only does it enhance the public's understanding of the objectives of policy and the decision-making process, it also guides market expectations.
- It is generally believed that effective communication by a central bank would benefit the public by helping them to make better forecasts of the economy and to understand the current state of the economy. Research has also found that greater transparency can increase the near-term predictability of interest rate decisions, allowing for smooth adjustments to the economy. Clear communication by the central bank also helps to anchor the public's long-term inflation expectations, which is important for various reasons (i.e. reduce macroeconomic volatility and financial market volatility).
- Many studies have been done on the readability and complexity of the MPC statements in different countries. In a study done in the US on the FOMC statements, it was found that the average number of words in the statement has increased over time. From approximately 210 words per statement during Chairman Alan Greenspan's tenure, the word count rose to an average 400 words per statement during Chairman Ben Bernanke's tenure by January 2009. Recently, under Chair Janet Yellen, the average number of words increased further to approximately 800 per statement. The increase in the number of words was accompanied by a rising trend of complexity of the statement as evidenced by higher reading grade levels which suggest that readers would require an education level of about three years beyond a four-year college degree to understand them.
- In Malaysia, the MPC statements are issued following each regular MPC meeting by BNM. They are meant to inform the public of the BNM's decision on its key interest rate, the OPR, as well as to give a clearer picture on how the central bank will guide the economy going forward. BNM has published its MPC statements since May 2004 on its website. Since May 2004, there were eight occasions where the OPR was raised (one in 2005, two in 2006, three in 2010, one in 2011, and one in 2014); three occasions where the rate was cut (one in 2008 and two in 2009) and the rest with the OPR level unchanged.

## Rising transparency

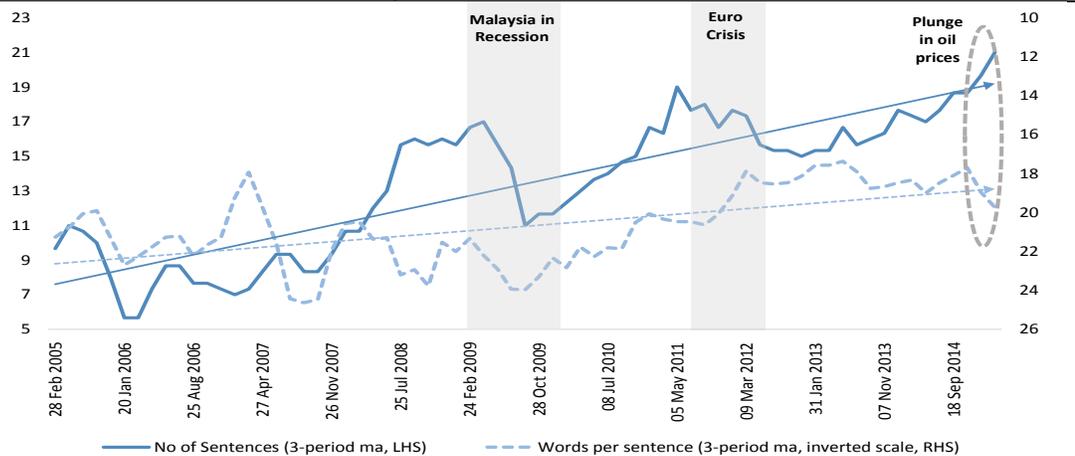
- Over the years, the number of words and paragraphs in the MPC statements have constantly increased in tandem with the greater amount of information disclosed by the committee. The MPC statement in August 2004 has only two paragraphs with 147 words, providing the committee's view on domestic activities, inflation, and labour market conditions. The shortest statement was in January 2006 with only 76 words, while the longest was in July 2008 with 487 words.
- Normally, the statements were longer when there were changes in policy decisions. The committee has consistently disclosed their views on global conditions since August 2008. After Malaysia's recession in 2009, the number of words increased significantly to an average of 333 words compared with 218 words prior to that. The sequence of information in the statements has also changed over the years. The arrangement of information today is typically as follows: (1) the committee's decision on the OPR; (2) current global economic conditions and future expectations; (3) current domestic economic conditions and future outlook; (4) current inflation and the committee's view on its future path and; (5) concluding paragraph.
- The number of words in MPC statements was generally higher prior to and during the crisis period, reaching more than 400 words and more than 19 sentences per statement before they normalised. This is compared with their long-term average of 281 words and 14 sentences per statement. The greater number of words during these periods is attributed to the higher number of sentences as the committee disclosed more information (Chart 2). However, the number of words per sentence actually fell over time.

Chart 1: Number of words and sentences in MPC statements



Source: BNM, MARC Fixed Income Research

Chart 2: Number of sentences and words per sentence in MPC statements



Source: BNM, MARC Fixed Income Research

## Rising predictability (to a certain degree)

- In general, BNM statements provide relatively clear messages on its possible near-term policy actions. This has led to increasing predictability of the future course of interest rates. Carefully crafted sentences were normally found to provide 'hints' on the future direction of the OPR. The crucial part of the MPC statement is none other than the concluding paragraph, which in most cases provides details of the central bank's concerns and the likely actions to be taken in the near term. For instance:
  - In October 2008 – one meeting prior to a rate cut, it stated that, *"In the face of diminishing inflationary pressures, and in the event of heightened downside risks to growth, the Bank will take swift monetary policy action to provide support to the economy."*
  - In January 2010 – one meeting prior to a rate hike it mentioned, *"At the same time, the MPC also recognises the need to ensure that the stance of monetary policy is appropriate to prevent the build up of financial imbalances that could arise from interest rates being too low for a prolonged period of time."*

- In January 2011 – two meetings prior to a rate hike, it concluded, “*While the liquidity in the financial system has been manageable, going forward, **additional policy tools such as the statutory reserve requirement and macroprudential lending measures may be considered to avoid the risks of macroeconomic and financial imbalances.***”
- In May 2014 – one meeting prior to a rate hike it stated, “*Going forward, **the degree of monetary accommodation may need to be adjusted to ensure that the risks arising from the accumulation of these imbalances would not undermine the growth prospects of the Malaysian economy.***”
- There were cases when no clues were found in the statements prior to an OPR change. For instance, the MPC statement released in January 2006 consisted of only 76 words outlining the committee’s decision on the OPR and detailing the committee’s take on domestic economic growth and inflation. No hints were given on the future path of interest rates. As a result, the market was caught off-guard when the BNM increased the OPR in the following meeting (February 2006). On the other hand, the BNM dropped a clear hint in its statement in May 2014 about its intention to raise the OPR which happened in the next meeting (July 2014). The message was clearly received by the market, causing the 3-year Malaysian Government Securities yields to remain stable after the rate hike was announced.

### Increasing complexity

- To ascertain the degree of clarity or complexity of BNM’s MPC statement, we adopted two measures of readability which have been widely accepted in the literature, namely the Flesch Reading Ease (FRE) Index and Flesch-Kincaid Grade Level (F-KGL). The two indices are approximately inversely related. The FRE measures the readability of technical writing, scoring the texts from 0 to 100. A high score indicates easier-to-read materials, while a low score indicates otherwise. On the other hand, the F-KGL translates the 0 to 100 score of raw FRE to school-grade levels, which may indicate the number of years of education generally required to understand the materials. The two indices were computed using Microsoft Word 2013 and the scores generated were matched against general reading ease and corresponding grade levels in Malaysia’s education system as shown in Table 1 and 2.

**Table 1: FRE score description**

FRE Score	General Reading Ease Scale
Below 30	Very difficult
30 - 50	Difficult
50.1 - 60	Fairly difficult
60.1 - 70	Standard
70.1 - 80	Fairly easy
80.1 – 90	Easy
90.1 - 100	Very Easy

Source: Natrah et al., “Procedia – Social and Behavioral Sciences” 164 (2014) 606-612, Table 1

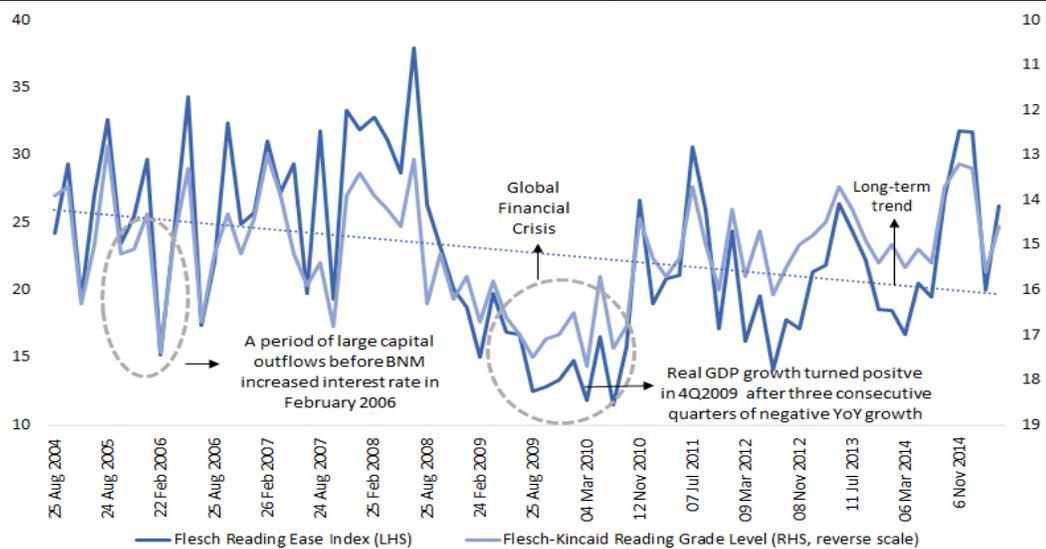
**Table 2: F-KGL description**

FRE Score	F-KGL score	Corresponding education level
Below 30	17 and above	Postgraduate
30 - 50	13.1 – 16.9	Undergraduate
50.1 - 60	12.1 – 13.0	STPM/Diploma
60.1 - 70	9.1 – 12.1	SPM
70.1 - 80	7.1 – 9.0	PMR
80.1 – 90	6.1 – 7.0	Primary School Leaver
90.1 - 100	1.0 – 6.0	Primary School

Source: Natrah et al., “Procedia – Social and Behavioral Sciences” 164 (2014) 606-612, Table 2

- Similar to the findings on the readability and complexity of the US FOMC statements, our analysis indicates that based on a long-term trend, there is a decreasing score of reading ease and increasing education level needed to understand BNM's MPC statements over a period of 11 years (Chart 3). This implies lower readability and greater complexity of MPC statements, especially up to mid-2010. The degree of complexity was notably higher during the GFC period as reflected in the reading ease score of 11.8 that corresponds to the education level of a postgraduate. A similar trend (of lower readability and greater complexity of the statement) was also observed in 1Q2006, before the central bank raised the interest rates in February 2006. Similar to the trend of word count in the statements, it is observed that the degree of complexity is also higher prior to and during a crisis period. Notwithstanding this, the trend has changed slightly since then as evidenced by rising reading ease index and lesser complexity associated with the statements after 2010.

**Chart 3: Flesch Reading Ease Index and Flesch-Kincaid Reading Grade Level Index**



Source: MARC Fixed Income Research

### If any word could be a clue, it is probably “*build-up*”

- The OPR was raised five times since 2010 i.e. March 2010, May 2010, July 2010, May 2011 and most recently in July 2014. The word “*build-up*” was mentioned in four statements since January 2010 – three of which were found in the concluding paragraph of MPC statements of the meetings one or two sittings prior to the rate hike. The word “*build-up*” that was associated with “*liquidity*” and “*financial imbalances*” appeared in the statements in January 2010, January 2011 and May 2014 underscores BNM's concern over the risks posed to the economy. They were followed by a rate hike in the following or subsequent meeting. On the other hand, the same word – “*build-up*” – which described the rising level of inventory in September 2010 was not followed by a rate hike in the subsequent meeting.
- The following are the words “*build-up*” that appeared in the statements during the meetings in 2010, 2011 and 2014 (prior to changes in the OPR):
  - January 2010 – “*build-up of financial imbalances*”
  - January 2011 – “*build-up of liquidity in the domestic financial system*”
  - May 2014 – “*build-up of financial imbalances*” and “*build up in economic and financial imbalances*”

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