

MONETARY POLICY TRANSMISSION THROUGH  
INVESTMENT ACCOUNT IN MALAYSIA: PRE AND  
POST IFSA 2013

BY

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## ABSTRACT

This paper sought to identify the monetary policy transmission via the Investment Account (IA) and how it has affected Islamic banks in Malaysia during the pre and post introduction of Islamic Financial Service Act (IFSA) 2013. As the name implies, IA is a type of account meant for investment purpose that bears a unique risk and reward structure compared to interest rate (IR) based deposit account offered by conventional banks. Such differences would eventually lead to a divergence between rate of return (ROR) for IA and IR for conventional deposits. Notwithstanding that, it is interesting to note that under dual banking system practiced in Malaysia, divergence between ROR and IR would create arbitrage opportunity for customers in the banking system and could lead to unintended volatility as the customers could easily switch between IA and IR based deposit. This could also diminish the effectiveness of the monetary policy framework of the central bank. In this regard, this paper seeks to examine how monetary policy stance by Bank Negara Malaysia (BNM) is transmitted through the IA. The study employs the Autoregressive-Distributed Lag (ARDL) techniques to measure the relationships between variables associated with IA, ROR, overnight policy rate (OPR), bond yield, economic output as well as inflation. The period of the study is divided into three different periods which are the full period of study from January 2007 until December 2018, period prior to IFSA introduction from January 2007 to June 2013 and period post IFSA introduction from July 2015 to December 2018. These periods coincide with the evolution of IA which is structured based on *Mudharabah* contract. The outcome of the ARDL estimates indicate that monetary policy transmission via IA is observed for all three periods, mirroring the scenario seen for similar transmission via interest based conventional deposits. This suggest appropriate response towards monetary policy stance of BNM, exemplified by the long and short-term relationship observed between IA and OPR, which is essential in meeting the objective of the monetary policy implementation. Nevertheless, continued monitoring of the development of Islamic finance, typically on the introduction of unique products and services is required to assess the potential impact on the suitability and the objective of monetary policy implementation.

## ملخص البحث

يهدف هذا البحث إلى تحديد انتقال السياسة النقدية عبر حساب الاستثمار (IA) وكيف أثرت على البنوك الإسلامية في ماليزيا خلال الفترة السابقة واللاحقة لتقديم قانون الخدمات المالية الإسلامية 2013 (IFSA). كما يوحي الاسم، فإن IA هو نوع من الحساب مخصص لغرض الاستثمار ذو هيكل متميز للمخاطر والمكافآت بالمقارنة مع حساب الودائع على أساس سعر الفائدة (IR) عند البنوك التقليدية. وهذه الاختلافات ستؤدي في النهاية إلى تفاوت بين معدل العائد (ROR) لحساب الاستثمار ولحساب الودائع على أساس سعر الفائدة للتقليدية. على الرغم من ذلك، من المثير للاهتمام ملاحظة أنه في ظل النظام المصرفي المزدوج الذي يمارس في ماليزيا، فإن التفاوت بين معدل العائد لحساب الاستثمار وحساب الودائع على أساس سعر الفائدة من شأنه أن يخلق فرصة للمراجعة للعملاء في النظام المصرفي وقد يؤدي إلى تقلب غير مقصود حيث يمكن للعملاء التبديل بسهولة بين IA والودائع المستندة إلى IR. هذا يمكن أن يقلل فعالية إطار السياسة النقدية للبنك المركزي. وفي هذا الصدد، يسعى هذا البحث إلى دراسة كيفية انتقال موقف السياسة النقدية من قبل البنك المركزي الماليزي (BNM) من خلال IA. توظف الدراسة تقنيات التأخر التلقائي الموزع (ARDL) لقياس العلاقات بين المتغيرات المرتبطة ب IA و ROR ومعدل سياسة السعر اليومي (OPR) وعائد السندات والإنتاج الاقتصادي بالإضافة إلى التضخم. تنقسم فترة الدراسة إلى ثلاث فترات مختلفة، وهي فترة الدراسة الكاملة من يناير 2007 حتى ديسمبر 2018، والفترة السابقة لتقديم IFSA من يناير 2007 إلى يونيو 2013 وفترة ما بعد تقديم IFSA من يوليو 2015 إلى ديسمبر 2018. تتزامن هذه الفترات مع تطور IA الذي تم تنظيمه على أساس عقد المضاربة. تشير نتائج تقديرات ARDL إلى أن انتقال السياسة النقدية عبر IA قد تم مراعاته في جميع الفترات الثلاثة، مما يعكس الحال الذي شوهد في عملية انتقال مماثلة عبر الودائع التقليدية القائمة على الفائدة. هذا يشير إلى استجابة مناسبة تجاه موقف السياسة النقدية للبنك المركزي الماليزي، يتجلى في العلاقة الطويلة والقصيرة الأجل التي لوحظت بين IA و OPR، وهو أمر ضروري لتحقيق هدف تنفيذ السياسة النقدية. ومع ذلك، فإن المراقبة المستمرة لتطور التمويل الإسلامي، وعادة عند إطلاق منتجات وخدمات فريدة، مطلوبة لتقييم التأثير المحتمل على ملاءمة وهدف تطبيق السياسة النقدية.

## **APPROVAL PAGE**

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## DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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## LIST OF ABBREVIATIONS

AOIR	Average Overnight Interbank Rate
ARDL	Autoregressive Distributed Lag
BNM	Bank Negara Malaysia
CBA	Central Bank of Malaysia Act 2009
CPI	Consumer Price Index
DCR	Displaced Commercial Risk
DFI	Development Financial Institutions
ER	Exchange Rate
FD	Fixed Deposit
FSA	Financial Services Act
FSMP	Financial Sector Master Plan
GDP	Gross Domestic Product
IA	Investment Account
IBA	Islamic Banking Act 1983
IFSA 2013	Islamic Financial Services Act 2013
IIB	International Islamic Bank
IPI	Industrial Production Index
IRF	Impulse Response Functions
IS-LM	“Investment Saving” and “Liquidity Preference-Money Supply” Curves
MGS	Malaysian Government Securities
MPC	Monetary Policy Committee
OPR	Overnight Policy Rate
ROR	Rate of Return
VAR	Vector Auto Regression
VECM	Vector Error Correction Model

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 INTRODUCTION AND BACKGROUND OF THE STUDY**

Monetary policy and its implementation by central banks in general are intended to influence the state of economy. In Malaysia, monetary policy is implemented with preserving price stability and ensuring sustainable economic growth as the main objective (BNM, 2017). To achieve such objective, Bank Negara Malaysia (BNM) use the Overnight Policy Rate (OPR) as the indicator of monetary policy stance (BNM, 2004). With OPR as the primary reference rate, prices of financial instruments across the yield curve are directly influenced by the movement of OPR before eventually affecting real economic activity and inflation. Such process, mainly termed as monetary policy transmission, thus describes how changes made by BNM on OPR as the monetary policy indicator, flow through the financial markets, impacting the real economy before finally influencing inflation. In this instance, interest rate for deposit for example will increase whenever OPR is increased, effectively making it more attractive for depositor to deposit their money in Malaysian banks. Meanwhile, interest rate for loans will increase as well, hence making it more expensive for people to borrow. The deposit and loans situation described above are example of the channels for monetary policy transmission. Therefore, whenever BNM increases OPR to moderate economic growth, loan will become more expensive. As a result, investment spending declines, thereby causing aggregate demand to decrease. Hence output falls, and ultimately inflation will reduce.

Under dual banking system implemented in Malaysia, these channels of monetary policy transmission are available for both conventional and Islamic banks. It is interesting to note although Islamic banks prohibit interest in their operation, they are still able to channel similar impact as interest rate to the real economy. In Malaysia, Shariah compliant monetary policy rate does not exist yet and as a matter of fact, Islamic banks in Malaysia are largely guided and influenced by OPR in determining their cost of funds and subsequent profit rate charged/ offered to customers/ investors<sup>1</sup>. Although OPR is fundamentally an interest-based policy rate and theoretically, it may not sound right for Islamic banks to be influenced by the OPR, given the inexistence of Shariah compliant monetary policy rate and relatively small size of market capitalisation, it has always been the case thus far. For now, such approach has proven to be efficient from the monetary policy pass-through point of view with empirical studies suggesting that pass-through impact remaining high and sizable from the OPR to Islamic money market rates (Ooi, 2008). Sukmana and Kassim (2010), Kassim and Majid (2009) and Majid and Hasin (2014) also support the idea that there is a strong link between Islamic banks and monetary policy, with Islamic banks functioning as conduit to channel the monetary policy impacts to the real economy. On the contrary, there are also studies arguing that the benchmarking to OPR is inefficient for Islamic banks in the sense that it does not tie up with the real economy and based on productivity and profitability of assets which should be endogenously determined unlike interest rate (Meera & Omar 2010).

While there are findings showing the effectiveness of Islamic bank as the conduit for monetary policy transmission in Malaysia, such findings were mostly

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<sup>1</sup> According to Islamic Pricing Benchmarking by ISRA researchers (2010), p.38, paragraph 1

based on the financing channel. In other words, the data used for these studies are largely concentrated on the asset side of the Islamic banks, ignoring the presence of *Mudharabah* based Investment Account (IA) which bears a unique risk and reward profile on the liability side of the Islamic banks. This study thus seeks to measure how IA structured using *Mudharabah* contract could influence the transmission of monetary policy. The assessment is made by applying the appropriate regression model to the data set which will determine whether the objective of monetary policy by the BNM could be achieved or not using IA as the conduit. To the best of researcher's knowledge, this topic on evaluating the monetary policy transmission via *Mudharabah* based IA has yet to be explored, and in this regard, this study is expected to contribute towards enriching the literature, not only concerning Islamic finance, but also to deepen discussion in the area of monetary economics.

## **1.2 STATEMENT OF THE PROBLEM**

There are currently an increasing number of studies on monetary policy transmission in Malaysia. Paper by Tang (2006), Tai, Sek and Har (2012), and Khaw and Sivabalan (2016) for example are amongst the notable one, examined among others the relative strength of various channels for monetary policy transmission in Malaysia. There were also studies looking specifically at the role of Islamic banks in the overall process of monetary policy transmission in Malaysia (see for example, Sukmana and Kassim (2010); Kassim and Majid (2009); and Majid and Hasin (2014)). These studies in general proved that Islamic banks are the important conduit for channeling of monetary policy impacts as the pass-through from policy rate to the respective transmission channels remains high and sizeable. However, most of these studies tend to focus on the lending channel associated with the asset side of the Islamic banks.



The coverage of these studies also is usually generalised through utilisation of average industry data without taking into consideration on how specific underlying contract use by Islamic banks to structure a product/ instrument could post different impact to the monetary transmission process.

On the asset side of Islamic banks, the products are mostly structured using sale-based contract (such as *Murabahah* and *Bai Bithaman Ajil*)<sup>2</sup> which carries along identical if not similar risk and reward profile to the conventional banks' loan. In contrast, *Mudharabah* contract is used as one of the underlying contracts on the liability side<sup>3</sup> of Islamic banks in Malaysia. Based on its inherent profit sharing and loss bearing feature, the *Mudharabah* contract is supposed to be unique and behave differently from traditional lender-borrower relationship promulgated under the conventional banking system. In this context, the rate of return (ROR) from any investment structured based on *Mudharabah* contract theoretically is not directly linked to the OPR. Rather it depends on the actual result/ performance of the *Mudharabah* venture, which cannot be determined upfront unlike interest rate. Notwithstanding that, in practice empirical evidence<sup>4</sup> suggested that the ROR from *Mudharabah* investment account is still at par (if not similar) to the interest rates offered through fixed deposit (FD) in conventional banks.

On the other hand, BNM has already started to implement contract based regulatory framework with greater clarity to be accorded on the obligations and rights of customers under the respective Shariah contracts. The Islamic Financial Services

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<sup>2</sup> Based on BNM Monthly Statistical Bulletin Table 1.18.2 on Financing by Concept for Islamic Banking System for the month of December 2018, a sum of RM289.7 billion of financing is based on BBA and *Murabahah* contract, equivalent to 54.1 percent of total Islamic banks financing. Financing based on *Mudharabah* meanwhile only constitutes of 0.008 percent of total financing.

<sup>3</sup> Also regarded as the deposit channel of monetary policy transmission.

<sup>4</sup> See for example *Dual Banking Systems and Interest Rate Risk for an Islamic Banks* by Bacha, Obyathulla I. (2004) and *Islamic Pricing Benchmarking* by ISRA researchers (2010).

Act 2013 (IFSA) and subsequent regulation issued by BNM ensure that the unique characteristics and risk profiling of underlying Shariah contracts use to structure product and instrument would be preserved. This is anticipated to post challenge to the implementation of monetary policy, as different risk profiling under different Shariah contracts, particularly *Mudharabah* contract may influence deviation from the policy rate and affect the effectiveness of monetary policy transmission especially via IA.

### **1.3 PURPOSE OF THE STUDY**

This paper aims to study the transmission of monetary policy in Malaysia via IA. As highlighted earlier, *Mudharabah* contract has a totally different risk and reward structure embedded in it compared to the interest-based instruments. Hence theoretically from monetary policy transmission point of view, the ROR may divert from the intended result of monetary policy formulation and implementation. However, in practice the scenario could be different. This could be due to management of Displaced Commercial Risk (DCR) by Islamic banks, where due to competitive reason, Islamic banks set aside their share of returns to ensure customer enjoy the sort of remuneration that they could obtained when placing deposit in conventional banks. Using data from BNM Highlights and Statistics (used to be known as Monthly Statistical Bulletin), this study highlights the state of monetary policy transmission via IA and factors that contribute to such transmission. Result of this study could justify innovative approach and strategy for monetary policy formulation and implementation in Malaysia.

In relation to the main objective above, this paper also discussed the IFSA which came into force on 30 June 2013. The IFSA provides clarity on the treatment

of *Mudharabah*-based account as an investment account as opposed to the status of deposit account it currently holds on the liability side of Islamic banks. This new development is anticipated to change the way *Mudharabah* based-account is structured on the liability side of Islamic banks, hence potentially influence the state of monetary policy transmission under the dual banking system in Malaysia.

#### **1.4 RESEARCH OBJECTIVES**

With a general aim of understanding the overall monetary policy transmission via the IA, the specific objectives of this study are:

- 1- To investigate the existing state of monetary policy transmission via the IA;
- 2- To analyse whether there is any difference between the state of monetary policy transmission via IA, prior and post implementation of IFSA 2013; and
- 3- To examine factors that affect monetary policy transmission via IA post IFSA 2013 implementation, given treatment of *Mudharabah*-based account as an IA rather than deposit.

#### **1.5 RESEARCH QUESTIONS**

- 1- Is cointegration or long-run relationship observed between IA and other variables used in this study from the period of January 2007 until December 2018?;
- 2- Is cointegration or long-run relationship observed between IA and other variables used in this study from the period of January 2007 until June

2013 (representing pre-IFSA period) and July 2015 until December 2018 (representing post-IFSA period) respectively?

- 3- What contributes to the nature of relationship observed between IA and OPR which represents the monetary policy indicators of BNM?

## **1.6 SIGNIFICANCE OF THE STUDY**

Over the past decades there have been enormous changes to global and local financial sectors including specific changes to Islamic banks in Malaysia. At the global front, the balance of risks to growth and inflation in emerging and developed economies has shifted frequently, necessitating continued reassessments of the stance of monetary policy. In developed countries for example, interest rate was maintained at low and even negative level to spur growth. There were also significant changes in the government that rule these countries, bringing along changes to the economic and fiscal policy respectively. Locally, significant changes among others include higher integration with the global financial system, diversification of the domestic economy and introduction of new laws, in particular the IFSA. Given these changes, understanding the monetary policy transmission mechanism is imperative to ensure successful conduct of monetary policy.

Result of this study could be significant inputs for BNM in the formulation and implementation of monetary policy. As pointed out by Ooi (2008), BNM back then did not see any different impact of different structure and returns under the Islamic financial system towards the effectiveness of the monetary transmission, with pass-through remaining high from policy rates to Islamic money market rate. However, given the growing importance of the Islamic financial system, the implications for monetary policy deserve careful study. As the risk and reward profiles inherent in

*Mudharabah* are different from those of *Murabahah* contract which is dominant on the asset side of Islamic banks, it is important to determine whether the intended objective of monetary policy formulation and implementation by BNM can be achieved or not through the IA. According to BNM, *Mudharabah* is a contract based on fiduciary relationship. Under this principle, *Mudharib* or fund manager manages the *Mudharabah* asset in trust and is not liable for the impairment of the asset except for cases related to misconduct, negligence or breach of specified terms. Impairment or loss in this case will be borne by the *Rabbul Mal* or capital provider. Under this type of relationship, the theory suggested that there shouldn't be any direct correlation between interest rate and the ROR for *Mudharabah* as the ROR is derived from the performance of asset invested using *Mudharabah* funds. If this hold true from operational point of view, then there will challenges for BNM to formulate and achieve the intended objective of monetary policy and the only way to confirm this is by analysing the transmission of monetary policy via IA as oppose to looking at Islamic bank financing or deposit channel on general basis.

In addition, this study intends to fill the gap on the literature related to the monetary policy transmission in Malaysia. As explained earlier, although there were increasing studies on monetary policy transmission in Malaysia, these studies generally utilised average industry data, ignoring significant presence of Islamic banking system that may behave differently from its conventional counterparts. For empirical research made specifically or confined to Islamic banks in Malaysia, the data are mostly driven by the asset side of Islamic banks, ignoring the significant component of the *Mudharabah* based IA on the liability side. Based on data published by BNM, on average prior to June 2013, *Mudharabah* based IA consists of around 40 percent of total Islamic liability in Malaysia. In June 2013, IFSA was legislated and

since then the market share of IA over total Islamic deposit has deteriorated to around 13 percent of total liability based for Islamic banks. Despite such deterioration, it has potential to grow further given growing interest from institutions and individuals. Although in terms of percentage or market share, the importance of *Mudharabah* based IA has reduced, the quality of *Mudharabah* based IA as a distinct Islamic banking product has improved tremendously. This is because the *Mudharabah* based IA that we see in the market today is no longer a “mirror” of conventional fixed deposit product. It is a unique product with different risk and reward profile. Hence for research purposes, this fact need to be detailed out and presented in the correct manner. The utilisation of average industry data without taking into consideration on how specific underlying contract use by Islamic banks to structure a product/ instrument could post different impact to the monetary transmission process may undermine the outcome of the study.

### **1.7 LIMITATIONS OF THE STUDY**

The study was confined to transmission via the IA only. There are other Shariah contracts structured on the liability side of Islamic banks that may not necessarily have similar risk and reward element to conventional fixed deposit, such as Wakalah based deposit/ investment which are not included in this study. This study was also confined to Islamic banking practice in Malaysia, due to lack of reliable data for a globally recognised and transparent dual banking system, other than Malaysia.

The study note that the introduction of IFSA could post significant impact to the monetary policy transmission process. However, IFSA was only introduced beginning June 2013 and grace period for compliance to IFSA were accorded. Effectively compliance to IFSA especially with respect to the definition of deposit and

investment only started in July 2015. Hence from data perspective, it is rather limited, especially for the analysis related to post IFSA period.

## **1.8 ORGANISATION OF THE STUDY**

This study is organised as follows. Overall, the study aims at understanding the monetary policy transmission via IA. Chapter 1 presented and discussed the background of the study. It explained the objective of monetary policy in Malaysia and how monetary policy is implemented by BNM through the relevant channels of monetary policy transmission. Additionally, the statement of the problem was discussed, anchored by observation that empirical studies on monetary policy transmission via Islamic banks tend to focus on the lending channel associated with the asset side of the Islamic banks, ignoring the significance of the *Mudharabah* based IA on the liability side of Islamic banks. The significance of the study followed, with the study is expected to contribute towards enriching the literature, not only concerning Islamic finance, but also to deepen discussion in the area of monetary economics. Finally, the limitations of the study were mentioned, followed by brief definitions of the key terms in this study.

Chapter 2 presented the background of the banking sector, investment account, IFSA and monetary policy. Key to the discussion is the structure of the banking system in Malaysia, especially on the existence of dual banking system, where conventional and Islamic banks operate in parallel. As Islamic banking developed over the years, different type of product and was introduced. Some replicate the risk and reward structure or profile of conventional product while there is also product designed based on unique risk and reward profile of its underlying Shariah contract. IA belongs in the latter's category. Hence in this chapter, overview of IA is given. In addition, there was

also discussion on monetary policy in Malaysia with focus on objectives and instruments use for monetary policy implementation. Based on these overview, one can relate on how monetary policy implementation works to achieve its intended objective and the contribution of IA throughout the process.

Chapter 3 is divided into two sections. First, the chapter reviewed theoretical literature on monetary policy transmission, focusing on concept of monetary policy transmission particularly the IS-LM model and the traditional transmission channels. The second part discussed about the empirical literatures related to the study, with focus on monetary policy transmission within a dual banking system like Indonesia and Malaysia. Methodology and outcome of the empirical studies were also presented and discussed to a certain extend.

Chapter 4 discussed the methodology adopted for the study as well as the data analysis. Various methods of investigation, including pre-test were included to determine the monetary policy transmission via IA.

Chapter 5 presented the results of various test and estimations as well as analysis for the findings while Chapter 6 concluded the research by summarising the outcome of the study and provided impact analysis to the existing policy as well as recommendations. This chapter also suggested future direction for the research.

## **1.9 DEFINITIONS OF TERMS**

### **Overnight Policy Rate**

The overnight policy rate (OPR) is an overnight interest rate set by BNM used for monetary policy direction. It is the target rate for the day-to-day liquidity operations of the BNM. In Malaysia, changes in the OPR trigger a chain of events that affect the base lending rate, short-term interest rates, fixed deposit rate, foreign exchange rates,