Evaluating the current interest-free monetary policy tools and suggesting a new one: case of Turkey via examples of Malaysia, Pakistan, and Bahrain

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Received 29 November 2021
Revised 24 May 2022
19 November 2022
1 January 2023
8 February 2023
Accepted 8 March 2023

Abstract

Purpose – This paper aims to achieve two goals: first, to evaluate the existing interest-free monetary policy tools in the major Islamic financial hubs of Malaysia, Pakistan and Bahrain and; second, to suggest how monetary policy tools in Turkey can be used in other countries.

Design/methodology/approach – This study follows a qualitative research method based on literature review, comparison, evaluation and design.

Findings – The policy rate cannot be used due to Shariah concerns. The reserve requirement depends on qard, and the reserves should be kept separately in the central bank. In terms of ijarah sukuk, Shariah concerns should be taken into account and a new structure, as displayed in Figure 3, should be followed. Government investment certificates can be used as an interest-free monetary policy tool. A genuine mudarabah interbank investments can also be used. Wadiah acceptance with no habitual gift can be used as well, and Tawarruq and central bank notes are not preferable due to Shariah concerns as well. Having said that, a Turkey-based tawarruq platform can be structured for others to use instead of applying to London.

Originality/value – This paper's unique suggestion is to develop an interbank taqaruz market and a taqaruz method with the central bank. It is also unique for Turkey in the subject.

Keywords Pakistan, Malaysia, Turkey, Bahrain, Interest-free monetary policy

Paper type Research paper

1. Introduction

Monetary policy includes making decisions that will affect the availability and cost of money to achieve such targets as economic growth, employment and price stability [Central Bank of Republic of Turkey (CBRT, 2023a), "Monetary Policy"]. The concept and application of monetary policy within such a definition is a new phenomenon, for governments, irrespective of their type, had been following two simple methods of monetary policy for centuries (New World Encyclopedia, 2018): decisions related to coinage and, later

Qualitative Research in Financial Markets
© Emerald Publishing Limited
1755-4179
DOI 10.1108/QRFM-11-2021-0195

on, to print paper money. Thus, monetary policy was not so complex because the relationship between government power, interest rates and money had not been settled yet. That could be due to different reasons, such as an official reluctance to adopt interest rates and/or the technical and scientific developments necessary for establishing a sound monetary policy scheme. The establishment of central banks in Europe during the 17th century enabled the development of a more complex monetary policy scheme.

Even so, monetary policy approaches continue to change due to changing circumstances. For instance, the Great Depression of the 1930s caused Keynesian monetary policy, which underlines the importance of interest rates on demand, to become dominant. However, in the 1960s, the Monetarists, led by Milton Friedman, argued that demand was decided by interest rates and other factors as well. Since the liberalization of the 1980s, the world has witnessed yet another monetary policy strategy, that of inflation/price targeting. Today, this is the most common strategy found in various countries and central banks.

The field of "Islamic finance" is a by-product of the wider and deeper idea of "Islamic economics", which has been developing since the beginning of the 20th century [1]. As this strategy approaches finance-related concepts, theories, practices and institutions from an Islamic perspective, issues such as monetary policy are among its basic concerns. This issue is particularly important contemporary monetary policy depends on interest, which Islam clearly condemns [2]. Therefore, thinking about monetary policy's concepts, tools and institutions from an Islamic perspective is an important task. Having said that, the related studies so far have focused more on theoretical issues than practical ones. Furthermore, more research needs to be conducted in terms of countries such as Turkey, i.e. a rising power in Islamic finance.

The early texts regarding monetary policy in modern Islamic economics, such as the ones written by Al-Jarhi (1980) and Chapra (1985), attempted to draw a general framework, for instance, what could be the aims of interest-free monetary policy and what kind of tools can be practised in general. However, a specific model development about an interest-free tool was not mentioned. The following works, such as by Zangeneh and Salam (1993), concentrated on the suitability of the existing interest-free tools without developing a new model. Some recent studies attempting to develop a new model, such as by Supriyanto (2017), do not depend on an expert view, and also, *shariah* concerns are not explicitly discussed. Compared to all these studies, this paper develops an expert-based new interest-free monetary policy tool by evaluating the existing tools from *shariah* perspective.

Henceforth, there are two main purposes: firstly, to evaluate the existing interest-free monetary policy tools in the major Islamic financial hubs of Malaysia, Pakistan and Bahrain, and secondly, to develop a new interest-free monetary policy tool. The method used to attain these aims will be explained in the following sections.

The research questions depending on these questions are as follows:

RQ1. What are the current interest-free monetary policy tools in the central Islamic financial hubs, which are Malaysia, Pakistan and Bahrain?

RQ2. What are the primary monetary policy tools, including the interest-free ones in Turkey, one of the emerging Islamic financial hubs in the world?

RQ3. What is the suggested interest-free tool of this paper?

The first question is important since the countries mentioned above are some of the main hubs of Islamic finance and banking in different parts of the world. Thus, their exemplary is important regarding the issue of interest-free monetary policy. Secondly, since the case study of this paper depends on Turkey, the second question is necessary to answer. This way, Turkey's lack of interest-free monetary policy tools compared to interest-based ones can be recognized easily. The third question helps us to develop the main target of this

paper, meaning to suggest a new interest-free monetary policy tool which can be practised in Turkey and in the world.

The primary benefits and contributions of the paper are as follows: it makes a broad investigation of outstanding countries in Islamic finance regarding the issue. Secondly, it takes into account *shariah* perspective while examining the existing interest-free monetary policy tools. Thirdly, a new interest-free monetary policy tool is suggested depending on an expert opinion.

2. Literature review

The literature regarding monetary policy, both in theory and practice, is ample. However, the same cannot be said when it comes to approaching this policy from the perspective of Islamic finance, for the existing literature mostly focuses on theoretical issues.

In this section, we will share some of the outstanding literature examples in this regard. As the amount of existing literature about monetary policy in Turkey is vast, we will concentrate upon those Islamic monetary policy-based studies conducted after the 1970s, when Islamic economics became more of a scientific field of study. In the conventional sense, monetary policy has become more systematic in the past 200–150 hundred years. The same thing is valid for the economic history of Muslims, even though managing the monetary situation of the states was always on the agenda. For instance, Ottomans followed a policy regarding money to keep it as high as possible inside the country. Today, in the academic field of Islamic economics, monetary policy is generally defined as the management of money at the state (or even supra-state) level to impact the economy positively. Chapra (1985) is a good example of that idea.

One of the earliest works after the 1970s to Al-Jarhi (1980), who suggests an investment-based creation of money instead of a lending-based one in which "[. . .] central bank deposits are invested in the real sector by banks, their rate of return would gauge monetary policy performance". However, applying this suggestion is difficult. In *Towards A Just Monetary System*, Chapra (1985) devotes an entire chapter to monetary policy. The author lists different instruments of Islamic monetary policy that target growth in money supply, public share of demand deposits for projects, statutory reserve requirement credit ceilings, value-oriented allocation of credit and other techniques such as moral suasion. Chapra also reviews some of the most suggested Islamic monetary tools, among them equity-based instruments. According to him, and in contrast to Al-Jarhi, these instruments cannot be used for open market operations (OMOs). Furthermore, Chapra also argues that it is not desirable for central banks to prescribe a lending or refinance ratio.

The refinance ratio is discussed in another early study edited by Ariff (1982). This work posits that some conventional monetary tools, such as legal reserve ratio, credit controls and moral suasion/persuasion, can also function as Islamic monetary policy tools because they do not involve interest. In addition, he argues that new Islamic monetary policy tools, such as profit-sharing ratio, lending and refinance ratio instead of interest ratio, can be developed. Thus, he disagrees with Chapra on the refinance ratio.

Zangeneh and Salam (1993) firstly list the main monetary policy tools used by central banks such as discount rate, OMOs, required reserve ratio, refinance ratio, selective credit control and moral suasion. They then argue that the required reserve ratio, moral suasion and other tools can be used directly because they comply with the *Shariah*'s (Islamic jurisprudence) principles; however, some of them require modifications, such as using the profit-sharing ratio instead of the discount or interest rate.

In a newer version of the aforementioned studies, Wisandani *et al.* (2017) consider monetary policy in Islamic economics in general by listing eight instruments of Islamic

monetary policy that central banks can use, among them the statutory reserve requirement, credit ceiling and moral suasion. Ariff, Chapra and other aforementioned authors have discussed these methods as well. Choudhury and Mirakhor (1997) argue that it would be more efficient to use indirect monetary instruments, namely, reserve requirements, the rediscount window and Lombard window or overdraft window, public sector deposits, credit auction, OMOs, foreign exchange swaps and repo operations. But because these operations involve interest, the authors provide interest-free suggestions, such as equity-based government securities for OMOs. This suggestion favours Al-Jarhi and contrasts with that of Chapra.

Regarding the use of equity or investment-based products in today's context, Khatat (2016) evaluates the relevance of some of the outstanding monetary mechanisms for Islamic banks operating in a dual banking system. He notes that equity-based Islamic products (such as *mudarabah*-labor-capital partnership) and markets (such as Islamic interbank *mudarabah* markets) can open other channels. In sum, a more-or-less general agreement on which monetary policy tools can be directly used in an interest-free scheme and which ones need to be modified.

The macroeconomic effects of the existing and/or suggested interest-free monetary policy tools concern recent studies in the literature. Selim (2015) finds that a sukuk-based monetary policy creates more output and employment, as well as less inflation together with fewer negative side effects. Those countries that prefer to use interest-free monetary policy tools, discussed below, have chosen to use this and similar tools. Thus, it is important to show their efficiency. But before doing that, the issue of their shariah compatibility has to be taken into account. *Qard hasan* (benevolent loan) is another interest-free monetary policy tool suggested in the literature and studies in terms of its effects. Selim (2018) finds positive effects of this tool on output and full employment. In another study conducted by Hasan *et al.* (2021), *qard hasan* is also found to have positive monetary effects on sustainable development. Selim and Hassan (2019) empirically measure the effect of an interest-free policy on inflation, unemployment and other macro variables. Their measurement, based on testing 23 countries, reveals that the group that used interest-free monetary policy tools experience relatively less inflation and unemployment when compared to the other group that did not use such tools. This result can be used as an incentive for countries to develop and use interest-free monetary policy tools. Selim (2020) investigates *Istisna'a's* (manufacturing order contract) monetary policy on full employment and price stability. The paper reaches positive conclusions.

The literature considers suggesting a benchmark for an interest-free monetary policy as an important subject. In this regard, Hanif and Shaikh (2010) posit that since a country's policy rate and the nominal gross domestic product (GDP) generally move close together, the latter can be used as a benchmark for conducting monetary policy. However, this requires a more detailed empirical search before it can be validated. Uddin and Asyraf (2015) also advance the idea of using the GDP growth rate instead of real interest rate as the benchmark for monetary policy. They list 15 interest-free monetary policy tools found in Malaysia. In a more recent study, Supriyanto (2017) suggests *Shari'ah* reference rate depending on the rate of profit as a substitute for the central bank of Indonesia. The study finds that such a suggestion would enhance the stability of the Islamic financial market.

Country-based studies are also discussed in the context of an interest-free monetary policy. Ismal (2011) starts his article by accepting the existence of central banking in Islamic economics and finance. However, there is one major qualification in this regard, namely, that its instruments must be compatible with Islamic jurisprudence. The author lists Malaysia, Pakistan and Sudan as countries that use *Shariah*-compatible monetary instruments such as

"government investment issues", "BNM (Bank Negara Malaysia) *sukuk* (Islamic bond) *murabahah* (mark-up sale) short-term securities" and "BNM commodity *murabahah*/*tawarruq* [3] acceptance". However, due to some concerns over such instruments, Ismal proposes four Islamic monetary instruments: a central bank *wakalah wa ijarah* (proxy and leasing) certificate, a central bank *wakalah wa ijarah muntahia bitamlik* (proxy and financial leasing) certificate, a *musharakah mutanaqisah wa ijarah* (diminishing *musharakah* – capital – capital partnership – and leasing) certificate and an Islamic securitization *wa ijarah* certificate. All of these eventually cause the money to either contract or expand. However, such proposals require deep investigation in terms of their *Shariah*-compatibility and applicability in practice before they can be implemented. We will attempt to conduct such an investigation in this paper with the addition of Turkey and a new product.

Karwowski (2015), who analyses Iran and Sudan's so-called fully Islamic monetary policy examples in practice, argues that they show the possibility of conducting Islamic monetary policy. However, his conclusion is too general. In another study, Hossain (2015) investigates central banking and monetary policy in nine Muslim-majority countries: Bahrain, Bangladesh, Egypt, Indonesia, Iran, Malaysia, Pakistan, Saudi Arabia and Turkey. However, instead of focusing on developing an interest-free monetary policy, his work deals with the current situation. At the end of their case studies of Iran, Sudan and Pakistan, Anwer *et al.* (2019) conclude that despite their central banks' efforts to implement interest-free policies and tools, existing problems such as political influence and nepotism, weak property rights and indebtedness have prevented them from devising further solutions.

Awad (2015) concentrates on this subject in relation to Sudan. He also follows the method of the early writers who categorized the conventional tools that can be directly used in the Islamic financial context: the statutory reserve ratio, credit ceilings, credit allocations, liquidity ratio, specific directives and moral suasion, as well as Islamic tools. He lists interest-free loans (*Qard-Hasan*) ratio on credit offered by commercial banks, central bank (CB) refinance ratio of interest-free loans provided by commercial banks, profit margins on *murabahah* investments, profit-sharing ratios on *mudarabah* and *musharakah* investments and administrative compensations on *mudarabah* and *musharakah* investments offered by commercial banks, the ratio of interest-free government securities in the advances portfolios of commercial banks and investment deposit with unrestricted *mudarabah* contract offered by CB to commercial banks whenever they experience liquidity shortages.

As suggesting new interest-free monetary policy tools is not an easy task, such studies are rare. In one such study, Bidabad (2019a, 2019b) suggests a tool called "Rastin Swap Bonds", which Iran's Rastin Banking System defines as follows: "Rastin Swap Bond is a financial paper that observes the right for the lender to borrow an equal amount of his lending from the borrower". The author argues that this suggested instrument is fully compliant with *Shariah*. Bidabad (2019a, 2019b) also suggests using interest-free treasury bonds as a new monetary policy tool. This new tool is a zero-coupon, asset-backed note.

Kazancı's (2020) published doctoral thesis studies the subject with regard to Turkey. After giving the relevant information about central banking and monetary policy, as well as interest-free banking, he provides examples of the relationship between central banks and interest-free banks by presenting Malaysia, some of the Gulf Cooperation Council (GCC) countries and the UK as case studies. Finally, the author investigates the relationship between the Central Bank of Turkey and interest-free banks and makes suggestions in regard of their monetary relationship. The current paper will be an upward continuation of the aforementioned thesis.

In sum, the literature regarding interest-free monetary policy is reviewed under the following headings:

- Direct and indirect monetary policy tools;
- The effects of interest-free monetary policy tools;
- Benchmark;
- Country examples;
- New suggestions; and
- Turkey-related studies.

The first group of literature focuses on those existing conventional monetary policy tools that can be used directly and those that need to be modified. Near unanimity has been reached on using the following tools directly: reserve requirement, credit ceiling/control and moral suasion. When it comes to using existing tools with modifications, the profit-sharing ratio is again an agreed-upon tool, whereas using the refinance ratio seems to require further discussion. Finally, using equity-based investment securities or products remains a matter of concern. The current – and empirical –literature focuses on the positive effects of an interest-free monetary policy. Though it is not this study's main aim, this policy can empower the paper's importance. This paper aims to contribute new suggestions to the very limited literature on this topic. The possible positive effects of the suggested monetary policy tools in this paper can be the subject of another paper.

In terms using the benchmark for calculating the policy rate, the GDP growth rate comes to the fore. And yet very little empirical research has been conducted on this subject.

Country-based studies mostly concentrate on Pakistan, Malaysia, Iran and Sudan. Pakistan, Iran and Sudan are included because they apply or have applied Islamic finance fully. In our study, we include Pakistan and Malaysia as representatives of East and South East Asia, respectively, and Bahrain as an important representative from the Gulf region. But before anything else, this study is about Turkey, which is rarely studied in the literature.

3. Methodology

In line with the aim, the paper will have the following *research steps*:

- The paper will evaluate the current situation of Pakistan, Malaysia, Bahrain and Turkey regarding interest-free monetary policy.
- The paper will suggest a new interest-free monetary policy tool in the context of Turkey by considering the pros and cons of the examples of Pakistan, Malaysia and Bahrain.

This study uses a *qualitative research method* conforming with the aforementioned research steps. In terms of the types of qualitative research methods or *research design*, this paper can be categorized as a *case study research* since it is developing a new monetary tool for Turkey by using the examples of three other countries mentioned above. Thus, it includes four cases regarding interest-free monetary policy tools. Depending on the case studies, the main *research question* is: "What kind of a new interest-free monetary policy tool can we suggest for the case of Turkey by using the case studies of Bahrain, Malaysia, and Pakistan?"

The following *research stages* will be fulfilled to conduct the aforementioned case studies: literature review, comparison, evaluation and model development. For the *literature review* and comparison, sources on the subject of interest-free monetary policy concerning the cases of Pakistan, Malaysia, Bahrain and Turkey will be covered. Academic writings as well as central bank documents will be used in this context. In a typical literature review, the main

steps are listed as follows (DSU, 2023): defining the topic, developing a strategy and locating the information, using and evaluating the information, synthesizing and evaluating the work. Regarding the first step, the topic is interest-free monetary tools. Secondly, the necessary information is gathered through the following sources; a central banker's opinion about the case of Pakistan and Turkey as the first-hand source, the related academic writings and central bank documents as the second-hand sources. Then the sources are evaluated depending on the *Shariah*-compliance of the existing tools and applicability in Turkey. As the next step, the learned knowledge is used to develop a new model for an interest-free monetary policy tool. In detail, literature reviews have different types, such as narrative reviews, descriptive or mapping reviews, scoping reviews, aggregative reviews, realist reviews and critical reviews (Pare and Kitsiou, 2016). This paper follows a critical review since it attempts "[. . .] to provide a critical evaluation and interpretive analysis of existing literature on a particular topic of interest to reveal strengths, weaknesses, contradictions, controversies, and/or other important issues [. . .]" (Ibid.). The primary evidence for the critical approach of this paper's review can be seen mainly in Tables 1 and 2. The model suggestion is based on the evaluations derived from these tables.

Our *evaluation* will take into account the applicability of these three countries' existing tools to Turkey and their degree of *Shariah*-compatibility. This compatibility depends mainly on the country's legal system as regard banking and central banking. In addition, expert opinions will be consulted for the *Shariah*-compatibility evaluation.

To *develop the suggested model*, the examples of Malaysia, Pakistan and Bahrain will be considered. In addition, an expert opinion concerning the Turkish case will also be considered.

The *research data* mainly consists of the knowledge gathered from the above-mentioned sources regarding interest-free monetary policy tools practised in Malaysia, Bahrain and Pakistan. This data is a qualitative type of data. Since the research is not a quantitative one, *data analysis techniques* do not include empirical study, statistical analysis and so on. Instead, it covers techniques explained above, such as the evaluation of the current tools by taking into *Shariah* concerns.

4. Analysis

In this section, we will first examine the interest-free monetary policy tools in Pakistan, Malaysia and Bahrain and then provide information about Turkey's current monetary policy. This will be followed by a detailed investigation of those countries' existing interest-free monetary policy tools and their applicability to Turkey. Finally, we will make recommendations regarding interest-free monetary tools in the context of Turkey that can be used by the three other countries.

4.1 Interest-free monetary policy tools in Pakistan, Malaysia and Bahrain

Islamic economists generally agree that central banks working within an Islamic framework have to carry out all of the functions performed in a conventional system (Ahmad, 2000; Ariff, 1982). Central banks use direct and indirect tools of monetary policy to achieve their goals. Direct tools comprise setting credit disbursement targets as well as moral suasion, whereas indirect instruments consist of setting of policy (interest) rate, reserve requirements and OMOs.

As discussed in the literature review section, Islamic economists argue that direct tools of conventional monetary policy can be used in an Islamic financial system (Ahmad, 2000; Ahmed *et al.*, 1983). Similarly, reserve requirements can be used for the Islamic banking

Table 1.
Comparison among Pakistan, Malaysia and Bahrain in terms of their Islamic monetary policy tools

Country	Pros	Cons	Uniqueness	Similarity	Lesson
Pakistan		– Policy rate for only conventional banks – Lack of statutory liquidity requirement tools, such as regular sukuk issuances by the government		– For OMO, ijarah sukuk – As money market tool, commodity murabahah/ tawarruq	– Governmental support is important
Malaysia	– Central Bank issuance as early as 1983 under the name of government investment certificate	– Shariah is a concern about some of the products	– Government investment issue based on sell and buy back like repo – Mudarabah interbank investments – Collateralized murabahah – Wadiah acceptance – Bank Negara monetary notes	– Ijarah sukuk – Commodity murabahah	– *Shariah*-compliance is important
Bahrain	– There is Islamic interbank monetary market		– Ijarah sukuk with wakalah instead of repo	– Ijarah sukuk – Commodity murabahah	– Importance of an Islamic interbank monetary market

Source: Developed and tabulated by the authors

Monetary policy tools	All options	Suitable for Turkey
Policy rate	– Government investment issue, sell and buy back agreement, i.e. repo	None
Reserve requirement	– Reserve requirement which brings interest (interest to charity)	– Reserve requirement on *qard* (with or without indexation) – Keeping reserves separately
OMOs	– *Ijarah sukuk*	– Genuine *ijarah sukuk*
Additional	– *Tawarruq* – Government investment certificates (GIC) – Mudarabah interbank investments (MII) – *Wadiah* acceptance – Central Bank notes – *Wakalah* investment method	– GIC – Genuine MII – *Wadiah* acceptance (with no habitual gift) – *Wakalah* investment with modifications

Source: Developed and tabulated by the authors

Table 2.
Review of the options and suitable interest-free monetary policy tools for Turkey

industry. However, some modifications are needed when it comes to OMOs and discount rate policy because they involve interest, which is incompatible with the *Shariah*.

In that regard, we will discuss the main tools of monetary policy used by the Islamic banking industry in Pakistan, Malaysia and Bahrain.

4.1.1 Monetary policy tools of the central bank and Islamic banking in Pakistan. This part will discuss the Central Bank of Pakistan's three main tools: the policy rate, reserve requirements and OMOs.

4.1.1.1 The policy rate. The State Bank of Pakistan (SBP) uses the policy rate to target the overnight money market repo rate as a signal of its monetary policy stance. This rate, set in the middle of the Interest Rate Corridor, is bounded by central bank's standing deposit facility at the repo (floor) rate and the standing financing facility at the reverse repo (ceiling) rate. The standing deposit facility allows banks to park their excess funds with this bank on an overnight basis at the floor (SBP repo) rate. On the other hand, conventional banks may use its financing facility to obtain funds for one day at the ceiling (SBP reverse repo) rate.

As far as the Islamic banking industry is concerned, no such facilities are available in Pakistan. Moreover, the policy rate is only set for the conventional money market because only conventional banks deal in the repo market. This fact proves the difficulty of implementing the suggestions mentioned in the literature section about using the profit-sharing ratio and similar tools as alternatives to conventional rates.

4.1.1.2 Reserve requirements. Banks are required to hold liquid assets in the form of cash and approved securities. There are two types of reserve requirements:

(1) cash reserve requirement

(2) statutory liquidity requirement (SLR)

Conventional and Islamic banks are required to hold 5% of their demand liabilities in the form of cash with the SBP on a fortnightly average basis. Moreover, banks are also required to invest in approved securities and/or hold those funds in cash. The maintaining period for an SLR is fortnightly, defined as starting on Friday and ending on the Thursday of the following week. For conventional banks, the SLR is set at 19% of their demand deposits. However, due to the dearth of eligible Islamic securities, known as *sukuk*, the SLR requirement for Islamic banks is 14% of their demand liabilities. This can be, as Selim and Hassan (2019) argue, evidence of *sukuk*'s effect on economic indicators.

4.1.1.3 Open market operations. OMOs are conducted to manage liquidity in the interbank money market so that the overnight interbank repo rate can be kept near the policy (target) rate. OMOs are conducted as repo transactions, which involve the central bank's purchase (sale) of government securities to inject (absorb) liquidity in (from) the interbank money market with an agreement to sell (purchase) the underlying security at a specified price at a designated future date. The tenor of OMOs is generally one week.

Islamic Banking Institutions (IBIs) are not allowed to participate in the repo market, for Islamic finance precepts prohibit dealing in repo. In 2014, to address the liquidity management issue of the IBIs, the SBP introduced OMOs for the IBIs. In this framework, the SBP purchases Government Ijara Sukuk (GIS) issued by the Government of Pakistan on a deferred payment (*bai-muajjal*) basis for a period of up to one year and sells them against ready payment in competitive bidding auctions. In the absence of regular *sukuk* issuances by the government, these operations provide a temporary extension for the funds' placement of IBIs used earlier to purchase GIS. In general, OMOs adopt the following sequence for IBIs using GIS with a remaining maturity of a week or so. The process works in the following order:

- The SBP invites bids from IBIs to sell the GIS to the SBP against payments on a deferred basis of up to one year.
- Successful IBIs for the outright sale of sukuk at the auction transfer the respective GIS to the SBP, usually on the auction date. The SBP then sells the GIS on a ready payment basis or holds them till maturity.
- The SBP then pays the deferred price to IBIs on the settlement date, which occurs after one year.

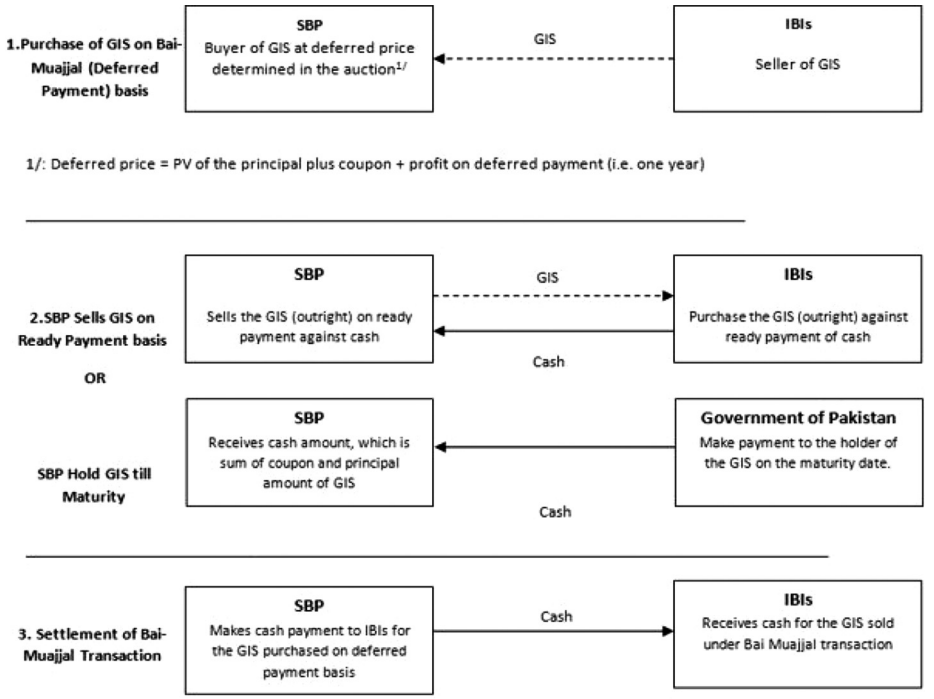
Figure 1 presents a graphical illustration of this process.

Apart from the SBP's operations, Islamic banks can also place their funds in a money market that uses any Islamic banking products. The most popular product is the commodity *murabahah*. In this arrangement, the illiquid bank approaches the liquid bank to purchase a certain commodity or financial instrument. Accordingly, the liquid bank sells the underlying commodity to it. The illiquid bank then pays for it in installments (deferred payment). In the second phase, the illiquid bank sells the commodity to a broker against a spot price to be paid in cash to meet the liquidity needs. The spot price is generally lower than the deferred payment price. Adopting this procedure fulfils the IBIs' funding needs in the money market. This procedure, generally known as *tawarruq*, i.e. monetization, is displayed in Figure 2.

4.1.2 Monetary operations for Islamic banking in Malaysia. In late 1983, Bank Negara Malaysia (BNM) issued the first *sukuk*: Government Investment Certificates (GIC). The holders of these certificates would give the government an interest-free loan (*Qard-e-Hasana*), after which it would unilaterally give them some return as a gift or an act of benevolence.

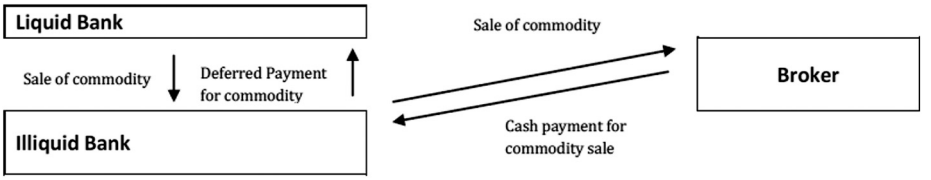
In 2001, a Government Investment Issue (GII) was issued on the basis of a sell and buy back agreement (SBBA), which is akin to repo agreement. According to this contract, the Malaysian Government sells its specific assets to financial institutions for a pre-agreed-upon cash price and then buys the same assets back at a higher price to be paid in the future. The purchase price is securitized in the form of a GII issued to financial institutions. At maturity, the government pays the purchase price to the GII holders in exchange for securities (Bacha, 2008) [4].

Further, to address the demand for Islamic instruments, the BNM issued its first asset-backed *ijarah sukuk* in February 2006, using a securitization type structure for the amount



Source: www.sbp.org.pk/dmmd/2014/C17.htm. Redrawn by the authors

Figure 1.
Process of Islamic OMOs in Pakistan



Source: Drawn by the authors

Figure 2.
Commodity Murabahah mechanism

of about US$110m (BNM, 2010). Moreover, an Islamic Interbank Money Market (IIMM) was introduced in 1994 to meet the IBIs' liquidity requirements. Deficit banks can get funds from surplus banks on the basis of *mudarabah* interbank investments (MII) with a tenor that ranges from overnight to 12 months.

In 2012, to add diversity to the existing liquidity management and promote greater liquidity in the Islamic financial market, the BNM introduced a new Islamic money market instrument: a collateralized *murabahah*. Initially launched by the Central Bank of the UAE (the United Arab Emirates), this instrument is a *Shariah*-compliant financing tool secured by some assets. Using a mixture of *murabahah* financing and *sukuk* as pledged assets, it backs the transaction to get a *murabahah* financing facility from the BNM (2012). IBIs can

use this mechanism to obtain funds from the BNM under the standing facility and from the interbank as well. The financier has the option to sell the asset if the issuer defaults.

For the standing facility, the BNM uses short-term instrument commodity *murabahah* and *wadiah* (contract of safekeeping) placements to control the liquidity in the market. In the latter, this bank absorbs liquidity by taking deposits from IBIs as a trustee and guarantees the principle's amount. For intraday credit facility, the BNM gives a credit line to the member IBIs for a period of less than one day. The facility accepts the pledging of eligible securities as collateral. The only cost involved is the very minimal administrative charges.

Payments in Malaysia's Islamic banking sector are conducted through a distinct structure of current accounts kept at the BNM. To ensure compliance with the *Shariah*, Islamic banking funds are kept separate from conventional banking funds. However, liquidity in Islamic and conventional banking is linked through third-party payments between both of them, as well as the participation of conventional banking institutions in Islamic banking products.

To achieve the target level of inflation, the BNM focuses on the money market's Overnight Policy Rate as the operational target of monetary policy. The monetary policy's target is only implemented in the conventional money market, where interest rate-based instruments are the primary funding instruments.

On the other hand, the BNM's primary objective in monetary operations in the Islamic money market is to ensure a sufficient amount of liquidity for the Islamic interbank market's efficient functioning. Thus, it influences the Islamic interbank market's liquidity through an array of *Shariah*-compliant instruments, the main ones of which are the following [5]:

(1) *Wadiah acceptance:* Wadiah acceptance (WA) enables the BNM to manage liquidity in the context of a surplus liquidity environment by inviting Islamic banking institutions to place their surplus funds with it. This tool, therefore, is a contract between that bank and the Islamic banking institutions that refers to a mechanism whereby the latter can park their surplus liquidity with the BNM based on the principle of Al-Wadiah. Under WA, the party who receives the funds is considered the custodian and is under no obligation to give any return to the funds' owner. However, the custodian may pay a dividend as a "hibah" (gift). The WA helps the BNM manage the Islamic banking industry's liquidity operations, as it gives the bank the flexibility to pay any dividend without investing the funds. In other words, the BNM uses the WA to absorb excess liquidity from the IIMM by accepting overnight money or fixed tenure wadiah.

(2) *The Commodity Murabahah Programme:* The bank also uses the Commodity Murabahah Programme (CMP) to manage liquidity. This programme uses mainly crude palm oil-based contracts as the underlying commodity transactions to facilitate liquidity management via a commodity trading platform, such as Bursa Suq Al Sila' or other commodity providers.

(3) *Bank Negara Monetary Notes-i:* For longer-term liquidity management, the BNM issues Islamic securities, Bank Negara Monetary Notes-i (BNMN-i), which are based on Islamic principles and, therefore, are held to meet the *Shariah*'s requirements. This instrument, which matures in three years, is issued either on a discounted or a coupon-bearing basis. The discount-based BNMN-i is traded using Malaysian Islamic Treasury Bills, whereas the profit-based BNMN-i uses GII. These instruments are structured based on the Islamic concepts of *Murabahah* (BNMN-Murabahah), *Ijarah* (BNMN-Ijarah), *Bai Bithaman Ajil* (BNMN-BBA) (similar to *murabahah*) and *Istithmar* (BNMN-Istithmar) (investment).

(4) BNMN-*Murabahah* uses a *murabahah* contract, which is a mark-up sale transaction. This essentially paper indebtedness emerges from a deferred mark-up sale transaction of a *Shariah*-compliant asset, such as crude palm oil. BNM *Sukuk* Berhad issues a BNMN-*Murabahah* through a competitive auction via the primary dealer network.

(5) BNMN-*Ijarah* is *sukuk*-based on the *Al-Ijarah,* i.e. sale and lease back. A special purpose vehicle (SPV), BNM Sukuk Berhad, was established to issue this instrument. The funds derived from the *sukuk*'s issuance are used to purchase the BNM's assets, which are then leased back to it to make rental payments. The rentals are distributed to investors as a return on investment on a semi-annual basis. When the *sukuk* reaches maturity, BNM Sukuk Berhad will sell the assets to the BNM at a pre-agreed price.

(6) BNMN-BBA is an Islamic money market transaction comprising two parties. The seller sells the assets to the buyer at an agreed price, and subsequently, both parties enter into a separate agreement in which the buyer promises to sell back the said asset to the seller at an agreed price. In other regions, this instrument is considered un-Islamic and thus is not implemented.

(7) BNMN-Istithmar is primarily based on the *Istithmar* (investment) idea. This instrument alludes to turning a portfolio investment into a consolidated structure of sell and rent back of assets (*Ijarah*) and mark-up on a sale transaction (*Murabahah*). The key objectives of issuing BNMN-i are to increase the efficiency and flexibility in the Islamic money market's liquidity management by diversifying Islamic financial instruments and expanding the *Shariah* concept used in the BNM's Islamic monetary operation.

4.1.3 Monetary policy tools in Bahrain. Bahrain is a leading player in the Middle East and Gulf Region in terms of Islamic finance. The Bahrain Central Bank plays an important role in facilitating the liquidity management of Islamic banks. In this regard, the country's government allows the use of long- and short-term *sukuk* issuances. Since overnight or weekly short-term deposits at the central bank are not an option for Islamic banks due to the existence of interest, attempts have been made to develop alternative monetary policy tools instead of repo. For instance, Islamic banks can receive one-week credit from the central bank via collateralized *ijarah sukuk*. Nowadays, the *wakalah* method is attached and thus acquires a different name, namely, a *wakalah*-based *ijarah sukuk*. The International Islamic Finance Market Institution (IIFM) prepares the standard contract.

In addition, similar to the Conventional Money Market, Bahrain has established an Islamic Interbank Monetary Market. The Bahrain Liquidity Management Center also established a platform for secondary trade on which *sukuk*-based instruments can be traded [6], and Islamic investment funds can be issued. However, since the issuance cost for short-term *sukuk* is high, Bahrain's Islamic banks use *sukuk* not as a liquidity management tool, but as an investment tool. As the counter party in Bahrain's Islamic monetary market comes from both conventional and Islamic banks, the former can be involved in a *murabahah* deposit market. However, a reverse *murabahah* can be done only by Islamic banks.

In sum, Bahrain uses the following Islamic monetary tools:

- Commodity *Murabahah*: This tool was designed to manage short-term liquidity surpluses/shortages. It is practised in a typical commodity *murabahah* scheme, as explained above.

- The *Wakalah* investment method: Islamic banks that have excess liquidity can make investments at the Central Bank via the *wakalah* method. It has one-week maturity.

Sukuk or *ijarah sukuk*, as a monetary tool, is not included in the list because they deal with interest.

4.1.4 Comparison among Pakistan, Malaysia and Bahrain, and lessons for Turkey. In comparison to Malaysia and Pakistan, we can conclude that Bahrain uses few concentrated methods as interest-free monetary policy tools. Having said that, Bahrain prefers not to use *sukuk* as the main interest-free monetary policy tool because this tool deals with interest. The summary of the overall comparison of the countries discussed can be seen in Table 1.

According to Table 1, the country which seems to have the most advantageous position in terms of interest-free Islamic monetary policy tools is Malaysia, thanks to its long-standing governmental support of Islamic finance. Pakistan experiences an opposite situation since it lacks governmental support in developing practical tools. Therefore, governmental support stands as one of the main lessons Turkey can learn from the experiences of the other countries. However, Malaysia has a significant negative side as well, which is *Shariah*-compliance issues raised both inside and outside the country. That needs to be taken as an important lesson too. Finally, from the experience of Bahrain, one can infer the significance of the existence of an Islamic monetary market which Turkey lacks currently. As main similarities, *ijarah sukuk* and commodity *murabahah* stand out. However, Turkey can have a problem in applying the second one, as it will be discussed below.

4.2 Monetary policy and tools in Turkey

Up to this point, we have shared information about the monetary policy tools used by Pakistani, Malaysian and Bahrainian central banks in connection with Islamic banking in those countries. From now on, we will share information about Turkey's monetary policy in two main parts: interest-based policies and interest-free policies.

4.2.1 Interest-based policies and tools. As is the case with most of the world's central banks, the Central Bank of Republic of Turkey (CBRT) "[. . .] sets the primary objective of the Central Bank as to achieve and maintain price stability in Turkey" (CBRT, 2023a, 2023b, 2023c). In the context of this primary objective, "hitting the inflation target" is a very important aspect of the country's monetary policy regime [7]. To meet these inflation targets, the CBRT uses policy rates and other instruments to manage aggregate demand and inflation expectations. Inflation forecasts are another important instrument in the process. The aforementioned policy rates can vary according to country, such as the "discount rate" and "repurchase agreement rate".

As mentioned above, the CBRT primarily uses policy rates to manage the aggregate demand and inflation. Such an interaction between policy rates and others is understood as a "monetary policy transmission mechanism". According to the information shared by CBRT (2013), this mechanism has three components:

- To determine the transmission from monetary policy applications to policy rates, asset (such as bond and stock) prices, expectations and exchange rates.
- The aforementioned variables affect the demand for domestic and imported goods.
- Behaviours regarding total demand and domestic prices are determined, and domestic and import prices shape inflation. In addition, interest rates have a direct impact on domestic prices, whereas exchange rates have a direct impact on import prices.

This mechanism's direction has been shaped by whatever economic ideas are dominant during the period in question. For instance, as mentioned in the introduction, the Keynesian idea that interest rates are the main factors affecting aggregate demand was dominant from 1930 to 1970, whereas Monetarist ideas, which argue that more tools than interest rates affect demand, have been on the rise since the 1970s. In this regard, the above listed three points can be seen as a reflection of Monetarist ideas. But which idea has Turkish monetary policy followed in this regard? Ahmet Faruk Aysan, [8] a former Monetary Policy Committee member, informed us that between 1980 and 2001, Turkey had no particular monetary policy because it only had a financial (treasury) policy. This could be called Keynesian. After that, a neoclassical and Keynesian consensus holds that inflation targeting came onto the scene, as explained above. Nowadays, there is also a particular post-Keynesian idea regarding monetary policy, i.e. the endogeneity of money, which contends that money in an economy is determined endogenously by bank credit and not directly by the central banks. According to a recent study conducted by Koç-Yurtkur (2019), Toda Yamamoto's method confirms the thesis of money endogeneity's in Turkey during 2006–2018. Taking similar studies into account, one can argue that Turkey, especially after 2005, has followed a post-Keynesian monetary policy.

According to the information shared by CBRT (2013), Turkey's main policy tool around 2001 was that of nominal exchange rates. Inflation targeting came later. Thus, the main tool was changed from exchange rates to short-term interest rates.

However, some changes regarding this type of monetary policy have also occurred recently. For instance, in addition to price stability, the effects of the 2008 financial crisis caused the CBRT to target financial stability on the grounds that price stability by itself might not lead to financial stability *per se*. In the context of financial stability, the primary focus has been to control current account deficits and the volatility of (short-term) capital flows. Such a change brought new policy tools, among them required reserves, an interest rate corridor, liquidity management and a reserve option mechanism. This new framework made it possible for credit and exchange rate channels to come to the fore. Table 3 compares the old (pre-2008) and new (post-2008) frameworks of Turkey's monetary policy.

Among the aforementioned tools mentioned in Table 1, the interest rate corridor's structure represents the area between the CBRT's overnight lending rate and the overnight borrowing rate from other banks in Turkey. In such a system, overnight rates can be changed without changing policy rates.

4.2.2 Interest-free policies and tools. As the previous section shows, Turkey adheres to a primarily interest-based monetary policy. However, due to the unignorable existence of participation banks since 1985, the Central Bank of Turkey had to develop some measures to deal with liquidity issues of those banks in the system. In this regard, the country's participation banks used the following central banking products (Kazancı, 2020):

Tools and targets of monetary policy	Old framework (pre-2008)	New framework (post-2008)
Tools	Policy rate	Policy rate Liquidity management Interest rate corridor Required reserves
Targets	Price stability	Price stability Financial stability

Source: CBRT (2013). Tabulated by the authors

Table 3. Comparison of Turkey's old and new monetary policies

- Required reserves;
- Outright purchase and sale;
- Repo and reverse repo;
- Effective delivery of foreign currency;
- Currency exchange against the Turkish lira;
- Turkish lira deposits against foreign exchange deposit sales;
- Currency equivalent Turkish Lira swap;
- Late liquidity window; and
- Intraday limit.

The problem here is that some of these tools are controversial from the *Shariah* perspective. For example, the third one and the last three ones need to be elaborated upon more so that the experiences of the three other countries can provide suggestions on how to develop *Shariah*-compatible equivalents. This will be done in the next section.

4.3 Suggestions for interest-free monetary policy tools

4.3.1 Suggestions in comparison to the three other countries. The information provided about Turkey shows that its monetary policy depends on interest-based strategies and tools. This would be only a small problem if its population were not 90%–95% Muslim and its banking sector was composed on only between 7% and 8% Islamic banks (participation banks). Given these realities, adopting interest-free monetary policy strategies and using interest-free monetary policy tools are necessary. Thus, this sub-section aims to make suggestions regarding the interest-free monetary policy framework and tools by using the experiences of Pakistan, Malaysia and Bahrain.

Pakistan provides three main tools in this regard: a policy rate, reserve requirements and OMOs. However, the first tool is not applicable to Pakistan's Islamic banks because it depends on the *repo rate* and thus is based on interest rates. Even though Pakistan does not use repo as an interest-free tool, Malaysia's *GII* is based on SBBA, i.e. a repo agreement. However, scholars from the GCC and other countries consider buy-back contracts prohibited because they include two contracts, which is prohibited according to the following hadith: "It was narrated by Ahmad Abdul Rahman bin Abdullah bin Masood, from his father, he said: "Messenger of Allah has forbidden two contacts in one contract" (Ebu Davud, Sünen, Buyu, 70). Another Shariah concern regarding SBBAs is related to *wadiah* because, as Ismail *et al.* (2010) argue, *waad* was designed to free the *bai al inah* contract from the SBBA's stipulations. In such a case, *waad* (promise) is approved due to *maqasid al-Shariah* at the highest level. So, if this does not satisfy that condition, then it cannot be approved. In Turkey, participation banks apply SBBAs, even though the exact data is not shared. Turkey's approval of it also depends on a similar argument mentioned by Ismail *et al.* (2010), Servet Bayındır [9], a well-known *Shariah* scholar in Turkey, criticizes this practice, which is commonly applied by participation banks, on the grounds that the transaction is accepted based on the argument that it is not a contract (*aqd*) but a *waad*, for the strong party (the bank) has no commitment to its *waad*. In sum, though it is practised in Malaysia and Turkey, this tool seems to have deep *Shariah* concerns that have caused Pakistan and the GCC countries to reject it. Thus, suggesting that it be used as an interest-free monetary policy tool seems to be rather controversial. At this point, one can ask whether a genuine "Islamic repo" can even be developed. The IIFM (International Islamic Financial Market, n.d.) suggests an

I'adat Al Shira'a (repo alternative) but does not share the tool's details. Moreover, no alternative repo structure currently exists.

When it comes to *reserve requirements,* both conventional and Islamic banks in Pakistan need to keep 5% of their demand deposits in the form of cash at the central bank on a fortnightly average basis. These reserves are non-remunerative, as the central bank gives no return on them to the Islamic banks. The reserve ratios can vary depending on the country's economic circumstances. However, what is important here is the *fiqhi* position of the income paid by the central banks is the result of keeping money for a specific period of time, for any such income automatically becomes interest. In addition, some theoretical discussions question whether the current fractional reserve system, which is based on reserve requirements, is a good option or not. Either by following other schools of thought (such as the Austrian school) or not, some Muslim scholars argue that instead of keeping some parts of their reserves at central banks, Islamic banks should keep 100% of their reserves (Al-Jarhi, 2004). The main reason for this suggestion is that a fractional reserve system is prone to create crises. But as the relevant details are irrelevant to our paper's main concern, we will instead focus on the solutions posited for using reserve requirements as an interest-free monetary policy tool by taking the current fractional reserve system as given.

As is the case with other countries, Turkey also has a fractional reserve system in its banking system. The Central Bank of Turkey announces the required reserve ratios for both the conventional and participation banks depending on the circumstances [10] and types of demand deposits. For instance, the reserve ratio for those deposits accepting Turkish lira with a maturity of up to six months was recently set at 4% for both types of banks (CBRT, 2023c, "Zorunlu Karşılık Oranlarına İlişkin Kararlar"). Currently, participation banks take the extra amount, which is interest, given for keeping their reserves at the central bank and then distribute it as a charity. A more preferable solution could be to establish the reserve relationship on *qard* instead of interest-based debt. In that sense, the central bank could either take the reserves and give nothing extra back or give an extra amount that equals that of inflation through indexation. Even though indexation according to inflation is controversial among *Shariah* scholars, some of them accept its validity. In this way, as Kazancı (2020) argues, the central bank would not lose anything by giving an extra amount that equals that of inflation. However, Turkey's central bank currently gives less than that amount. So, whether this would be acceptable for the central bank, especially for those periods when inflation rates are higher, is uncertain. For the reserve requirement, another issue is keeping the banks' funds separate from each other. In that regard, Malaysia attempts to make the process compatible with the *Shariah* by separating the Islamic banks' funds from those of the conventional banks. This is an important requirement for providing *Shariah*-compatibility.

In terms of OMOs, Pakistan's central bank of can both purchase the *ijarah sukuk* (GIS) issued by the government on a deferred payment (*bai muajjal*) basis for up to one year and sell them against ready payment in competitive bidding auctions. As in Pakistan, Malaysia's central bank uses asset-backed *ijarah sukuk* as a replacement for the commonly used treasury bond sales and buying, which include interest. Turkey also uses treasury *ijarah sukuk*. However, there are some concerns about its current treasury *sukuk*. Bayındır (2014) argues that the current *sukuk* application is no more than collecting a loan of money from the market by a SPV via showing real estate as collateral. Thus, the money paid by the SPV is not rent, but interest. In the end, such a transaction is like *bai al istiglal* (asset-based lending), which many *Shariah* scholars have condemned. In conclusion, Turkey should conduct a careful *Shariah* evaluation before using *ijarah sukuk* as a monetary policy tool.

The necessary judicial changes also need to be made in that regard. Bayındır (2014) suggests the following main judicial changes for this tool, as follows:

- Asset transfers between the originator and the SPV must be based on either sale or lease transactions with all the relevant powers, responsibilities and consequences.
- The rights and responsibilities arising from the asset's ownership (if it is sale, the asset itself and benefit of it; if it is lease, only the benefit of it) must be stated as belonging to the SPV.
- The responsibility of keeping the asset ready for use during the lease period must also be stated as belonging to the SPV.
- At the end of the lease period, it must be stated that the asset can be sold to the originator in case the SPV and/or originator demand it (not necessarily, but upon request).
- It must be clearly stated that the property's price will be sold back at the end of the lease period, either by negotiation between the parties or at the price determined by the experts.
- In addition, the SPV can perform the transaction by guaranteeing the certificate holders that their certificates will be repurchased from the secondary market and at market price.

Finally, as seen in the example of Pakistan, Islamic banks use money market products such as commodity *murabahah* (*tawarruq*). In that regard, when Islamic banks have a liquidity shortage, the central bank buys a commodity (generally metal from the metal market in London) on spot and sells it to Islamic banks on a deferred basis. Collateralized *murabahah* is just one type of *tawarruq*. Islamic banks in Malaysia use it as a liquidity management tool. This type of *tawarruq* differs from the first one in that, as the name suggests, *sukuk* and similar *Shariah*-based certificates are used as collateral for the above-mentioned transaction. Even though *tawarruq* is one of the most applied practices, especially for the liquidity management of Islamic banks, there are discussions about its *fiqhi* position. The main concern here is *tawarruq*'s resemblance to *bai al inah*. Many of the *madhhabs* (schools of fiqh in Islam) reject it on the grounds that it is an indirect version of having an interest-based debt relationship. It should be noted here that even *bai al inah* (SBBA) is accepted in Malaysia since the Shafii *maddhab* accepts it according to *maslaha* (public utility) criterion. But there still should be some considerations when carrying out a *tawarruq* operation, such as the existence of organized *tawarruq* that is a hidden *bai al inah* contract, which is forbidden by the Fiqh Academy (2009) [11].

Another concern here is its content. Firstly, the commodity in question should be *Shariah*-compatible. Secondly, the aim needs to be genuine because nowadays, the main aim is not to directly buy and sell something but to get liquidity that makes no contribution to the real economy. Finally, using London's metal stock exchange for such operations is another concern. Malaysia has an alternative, namely, the Bursa Malaysia Suq-al Sıla, i.e. the palm oil stock exchange. Even though participation banks in Turkey use *tawarruq*, the central bank [12] does not use it directly as a monetary policy tool. But in our opinion, *tawarruq* has serious *Shariah* concerns, one of them being the prevalence of fictive transactions that make no contribution to the real economy and indirectly get an extra amount of money instead of directly taking interest on a debt relationship. In addition, it helps British dealers earn a commission. To solve this last issue, Kazancı (2018) suggests that the Turkish Mercantile Exchange (est. 2019) can serve as a good alternative platform for *tawarruq*. However, this platform is only one – and a relatively less – problematic issue.

Due to serious *Shariah* concerns, we contend that *tawarruq* may not be the best option when looking for an interest-free monetary policy tool.

According to the Malaysian example, GIC were first based on *qard*, but later on were expanded to other things, such as credit cards. Its name was also changed to GII (BNM, 2010). Thus, it now depends on commodity *murabahah*, as explained above. Therefore, its applicability is unclear in our opinion, especially if it is based on commodity *murabahah* instead of *qard*.

Another investment tool used in the IIMM is the MII, which Islamic banks use to manage their liquidity. Even though *mudarabah* itself is an acceptable contract type in *fiqh* literature, the way in which it is used needs to be considered carefully because, as explained by Bayındır (2015), the fact that Malaysia's central bank sets a minimum required return makes the contract similar to an interest-based one [13]. Currently, Turkey has no specific IIMM. Thus, creating one could be a first step towards using the necessary and acceptable tools of liquidity management. Currently, Turkey is not using the MII tool. By taking into account its problematic application in Malaysia, as described above, this tool can be an option as an interest-free tool. However, its desirability to Islamic banks is questionable because even they cannot use *mudarabah* applications primarily due to the risk factor. Another concern, as indicated by Tarık Börekçi [14], is that since the share of participation banking is around 6% in Turkey, such an investment platform may not be enough to meet the liquidity needs of participation banks.

In general, Malaysia's central bank influences the Islamic interbank market's liquidity through:

- WA;
- Commodity *murabahah* (*tawarruq*) programme; and
- Bank Negara Malaysia Notes-i (BNMN-i), which are based on *murabahah*, *ijarah*, *bai bithaman ajil* and *istithmar*.

W*A* refers to a relationship between Islamic banks and the central bank that allows Islamic banks to keep their excess liquidity there. Thus, the central bank serves as a custodian without expecting any return. But if there is a return, this additional part would become a gift (*hiba*). As long as its payment does not become a regular habit, this practice is permitted from the *Shariah* point of view. However, the same cannot be said for the second one, for the reasons given above. *BNMN-i*, *murabahah* and *ijarah* structures are also known in Turkey. *Bai bithaman ajil* (BBA), a kind of *murabahah* practiced in Malaysia, is neither known nor practiced in Turkey. The main difference between the two is that either or all of the payment prices can be spot or deferred in a *murabahah*, whereas it can only be deferred in a BBA. In addition, there is no need to state the cost price and amount of mark-up in a BBA, whereas doing so is required in a *murabahah*. It was stated above that this instrument is not considered Islamic in other regions, and thus it is not implemented. *Istithmar*, on the other hand, means investment in general. In the context of monetary policy, it can be understood as *sukuk al-istithmar*, meaning that *ijarah* contracts, *murabahah* receivables and/or *istisna* (order for construction or manufacturing) receivables can be packaged and sold as an invesment (IslamicMarkets, n.d.).

But there is a *Shariah* concern here, i.e. sale of receivables. In *fiqh* literature, the sale of receivables is called *tamleek* (making another an owner) of receivables. In its simplest form, selling them to a third party is unacceptable, depending upon the type of asset in question. For instance, according to Abu Hanifah, movable estates cannot be sold to a third person/actor (Aybakan, 2011). As an investment tool, this is similar to the structure of an

asset-backed security issued under the name of Varlığa Dayalı Menkul Kıymet in Turkey; it includes interest. Some participation banks use these securities in their hybrid *sukuk*s at a level of no more than 49%. This raises the question of whether something that is unacceptable becomes acceptable when the level is less than half. This question, plus the aforementioned *Shariah* concern on selling receivables to a third party, makes *sukuk al-istithmar* problematic. In sum, this last option of BNMN-i does not seem so plausible for Turkey.

In terms of Bahrain, two main methods were mentioned: commodity *murabahah* (*tawarruq*) and *wakalah* investment. Though *ijarah sukuk* was also mentioned for Bahrain, it was noted that this method is not as common as the other ones. Regarding the evaluation of these methods, *tawarruq* and *ijarah sukuk* have been elaborated upon previously in the context of Pakistan and Malaysia. Many things can be said about a *wakalah* investment, for it remains a debatable issue. Many Islamic banks have used it for a decade, especially as a way to attract customers who are sensitive to the changes in return rates distributed to investment deposits, i.e. profit and loss sharing deposits. As its name implies, this method depends on investment activities conducted by a *wakeel* (the agent) in the name of a *muwakkil* (the customer). This method differs from investment deposits in that the contract depends on *wakalah* instead of partnership (*mudarabah*). Thus, instead of agreeing on a profit-sharing ratio, the *wakalah* investment method announces an estimated return rate at the beginning. Turkey has used this method since 2018. Applying it results in four possible outcomes (Özdemir and Lila, 2020): if the actual return is higher than the estimated return (the extra return would stay with the *wakeel* [the bank]); if the return is less than the estimated return (this return would be paid to the customer); if there is loss (if there is no misuse and misconduct by the *wakeel*, then the remaining principal is paid to the customer); and if the estimated return is exactly attained, then it is directly shared by the customer. Due to its service, the *wakeel* would earn a commission fee.

One of the main debatable issues concerning this method is the existence and nature of the estimated return rate. Firstly, even though it is not guaranteed, announcing a return rate at the beginning of the contract can easily be perceived as a kind of interest payment (Öztürk and Yumuşak, 2020). Secondly, and in connection with the first one, a regular *wakalah* agreement is not binding in terms of maturity, whereas a *wakalah* investment is a binding contract, as defined by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). This issue is related to the liability of recovery if the actual return is less than the estimated one. Çakır (2019) explains that the AAOIFI announces in the related standard that the wakeel can be held responsible if the actual return is less than the estimated one. This decision depends on a Hanbali opinion, which states that the *wakeel* is in opposition to the conditions mentioned in the contract. However, it is questionable whether such a deduction can be made from a typical *wakalah* agreement and a case in which the *wakeel* has really engaged in misconduct. Thirdly, to attain the estimated return rate, banks can push themselves forward by using profit equalization reserves or even sharing from their own capital (ibid.). Depending on all of these debatable points, we are of the opinion that its proliferation is not a very desirable option unless the debatable points are resolved. Therefore, in the suggestion we make, we will take into account these points.

The summary of the options of interest-free monetary policy tools used in Pakistan, Malaysia and Bahrain, as well as Turkey's current practices, is shown on Table 3. The table also summarizes the options elaborated by us and found to be suitable for Turkey.

As Table 2 shows, the policy rate is the most problematic tool because one cannot find an undisputed, *Shariah*-complaint alternative for it. The suggested structure for the reserve requirement is the one based on *qard*. Another important point is to keep the reserves of

conventional and participation banks separate. *Ijarah sukuk* is a good option for OMOs but needs to be modified. GIC, a modified version of MII and *wadiah* acceptance are also additional tools that Turkey can use. The *wakalah* investment method, discussed above in the context of Bahrain, needs to be taken into account with precautions due to the aforementioned reasons.

4.3.2 An original suggestion. In this section, we will suggest an original interest-free monetary policy tool for Turkey that can also be used by the other countries.

Kazancı (2019) suggested two different tools as interest-free monetary policy. One of them is interbank *taqaruz* (mutual *qard* relation) market, where Islamic banks can give interest-free *qard*-based debit/credit to each other. The other method is also depending on *taqaruz* but in relation to central bank. In this part, we will take these suggestions further by adding a new one called *wakalah*-based (proxy-based) interest-free monetary tools.

Proxy investment is a product operated with a *wakalah* contract. Thanks to this product, the bank with excess liquidity (investor) appoints the bank with a liquidity deficit (the operator) as a proxy to invest. In the proxy agreement made between the parties, it is decided at which profit rate the capital will be operated. If the operating bank makes more profit, the excess profit belongs to the operating bank. All of the risks in this application belong to the investor bank, except for the fault and negligence of the operator.

If applied in its theoretical form, the proxy investment method is a permissible product since it is realized with *wakalah* contract that is appropriate in terms of *fiqh.* The operating bank operates the investor bank's surplus funds as a proxy, and the risk and return belong to the investing bank. The operating bank, on the other hand, receives a commission in return for the attorney's service. In addition, the operating bank owns the profit above the agreed profit rate. This type of practice is considered appropriate in *fiqh* (Bayindir, 2015).

Depending on the above-explained *wakalah* contract, there are two possible applications that can be used by participation banks; the central bank makes *wakalah* investment in participation banks, and participation banks make *wakalah* investment in central bank. The first one is commonly known applied in the world. But the second one is not practised yet. This is what our suggestion depends on, i.e. *wakalah* investment in central bank by participation banks:

> *Wakalah investment in central bank:* In order for a central bank to use the liquidity it receives by proxy, first of all, a structure must be established in which it can use this liquidity in accordance with *Shariah*. Since central banks carry out interest-bearing transactions, they can make profit by using the liquidity they receive in a pool of legally compliant assets so that they can make proxy investment transactions.
>
> It is recommended that a central bank, in which deposits are made for proxy investment, first establish a pool containing mutual funds. Mutual funds to be included in this pool must be Islamic mutual funds. Islamic mutual funds are funds that do not provide interest earnings to their investors. KT Portfolio Management Inc., Ziraat Portfolio and Albaraka Portfolio can be given as examples of some institutions that establish and operate Islamic mutual funds in Turkey. Apart from these, there are interest-free mutual funds established by many conventional banks. These institutions manage portfolios of stocks, lease certificates, participation accounts, gold and other precious metals in return for the funds they collect from their customers.
>
> Mutual funds can be of many different types such as gold mutual funds, precious metals participation funds, lease certificate mutual funds, participation stock mutual funds, participation account mutual funds, venture capital mutual funds, and real estate investment funds.

The steps followed during the process are:

- The central bank creates an investment pool for itself by purchasing Islamic mutual funds from the market.
- The participation bank deposits the liquidity with the central bank on a term basis to generate income at the expected profit rate.
- The central bank ensures the full use of the pool by reducing its own deposits as much as the deposits of the participation bank. The central bank will receive a profit equal to the expected profit that the participation bank will receive for its own deposits.
- At maturity, the central bank pays the participation bank a profit after deducting expenses based on the income of the investment fund pool. This profit may be at or below the expected rate of profit.

The last point is the main peculiarity of our suggested model. Even though a similar model is suggested by the Bank of England (2017), their suggestion depends on the existence of a *sukuk* pool. However, here we suggest an investment fund pool.

5. Implications

Monetary policy is one of the main economic policies conducted in an economy. Today, most of the tools used for monetary policy are based on interest. Since interest ban is an important aspect of Islamic economics and finance, necessity of developing alternative interest-free monetary policy tools is immense. Even though there are some practices applied by different countries in that regard, such as Malaysia, Pakistan and Bahrain, the necessity is still alive because some of the tools might be controversial from *Shariah* perspective and might not be appropriate to be applied by other countries. In that regard, the suggestion that we make in this paper can have an implication for the central banks of the countries that would like to apply interest-free monetary policy. Secondly, as it is discussed in some studies mentioned in the literature part, interest-free monetary policy tools are expected to have better impacts on socio-economic structure compared to interest-based policies. Thus, another important implication would be on societies.

6. Conclusion

Islamic finance aims at developing theories and practices in finance within the framework of Islam. Its visibility has increased since 1970s with the establishment of Islamic financial institutions and the regulations concerning them.

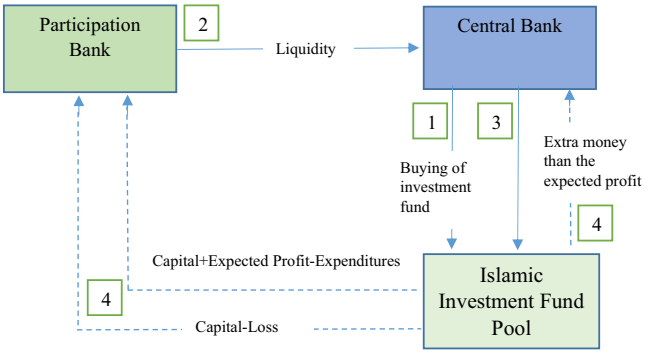
One of the most important financial institutions today is central banks, whose main duty is to conduct monetary policy. There have been discussions about central banking – whether it is necessary and, if it is, how it can be constructed – in the relevant literature. As the dominant financial structure among Muslim communities is the dual one, the concern is much more on how to introduce monetary policy schemes, rules and tools compatible with Islamic finance. At this point, it is important directly to investigate the practical examples because they can provide more concrete roadmaps. Three important examples from three financial hubs are Malaysia, Pakistan and Bahrain. In this context, this paper investigated and evaluated their interest-free monetary policy tools for their applicability in Turkey, which has been a growing power in Islamic financial arena for the past 10 years. However, the country still lacks strong alternatives as interest-free monetary tools and procedures. Thus, this paper aims to make suggestions in that regard. In addition, it put forth a new suggestion for interest-free monetary policy tools

that can also be used elsewhere. It can be asked at this point how the suggested model can be applied in different parts of the world. The following answers can be given to that question; firstly, international Islamic financial institutions such as AAOIFI and Islamic Financial Services Board put standards regarding main issues concerning Islamic financial institutions. The suggested model can be introduced to these institutions. Secondly, the central banks of many Muslim societies, such as Pakistan and Malaysia, are involved in putting standards regarding monetary policy tools. The suggested model can also be introduced to them.

As a result of this qualitative research, the paper reached following conclusions about applying the interest-free monetary policy tools used in Malaysia, Pakistan and Bahrain:

- The policy rate cannot be used due to *Shariah* concerns;
- The reserve requirement depends on *qard*, and the reserves should be kept separately in the central bank;
- In terms of *ijarah sukuk*, *Shariah* concerns should be taken into account, and a new structure should be followed;
- Government investment certificates can be used;
- A genuine MII can be used;
- *WA* with no habitual gift can be used; and
- *Tawarruq* and central bank notes are not preferable due to *Shariah* concerns as well.

In addition, this paper's unique suggestion is to develop the method *wakalah* investment in central bank shown on Figure 3. In such a scheme, it is recommended that a central bank, in which deposits are made for proxy investment, first establish a pool containing mutual funds. Mutual funds to be included in this pool must be Islamic mutual funds. Islamic mutual funds are funds that do not provide interest earnings to their investors. The method can be used as an interest-free monetary policy tool elsewhere, whether the place is more strict in *Shariah*-compatibility issues or not. Because no discussable issue is attached to the method in that regard.



Source: Prepared by the authors

Figure 3.
Wakalah in central bank

Notes

1. This does not mean that earlier Muslims never dealt with economic-related issues. On the contrary, ideas regarding such issues comprise a specific field called "Islamic economic thought". In short, the specific term "Islamic economics", which concentrates on a more systematic, science-based structure of economics, is a new phenomenon.
2. In this paper, without making any differentiation, we include all types of current interest-based practices of central banks under interest (*riba*), which Islam prohibits.
3. Tawarruq "refers to the sale of a commodity purchased on a deferred basis to a third party in cash and generally for a lower price to obtain cash" (TKBB, 2019).
4. Some scholars consider buy-back contracts prohibited on the gounds tht it is two contracts in one contract.
5. For more details, see: http://iimm.bnm.gov.my/index.php?ch=4&pg=4&ac=22#4
6. *Shariah* concerns regarding second-hand *sukuk* must be evaluated separately. According to the general opinion, if a *sukuk* document is based on a concrete asset, service or project, then it can be traded in second-hand, whereas if it is about a receivable, such as *murabahah* receivables, it cannot be so traded.
7. Though it is an important and interesting subject, the relationship between neoliberalism, guidance towards inflation targeting and international financial institutions such as the International Monetary Fund is not discussed in this paper; however, it can be a topic for further research.
8. This information is gathered through unofficial email contact with him.
9. The scholar's argument was acquired through a personal question and answer via email.
10. The reserve ratios have been increased in general or any kind of banks after the global 2008 financial crisis to decrease the level of risk.
11. There are two resolutions in that regard, and the second one directly says that "It is not permissible to execute both tawarruq (organized and reversed) because simultaneous transactions occur between the financier and the mustawriq (a person), whether it is done explicitly or implicitly or based on common practice, in exchange for a financial obligation. This is considered a deception, i.e. to get the additional quick cash from the contract. Hence, the transaction is considered as containing the element of *riba*". (For further information, see: https://www.iefpedia.com/english/?p=2618).
12. Bayındır, through email contact, says that *tawarruq* is applied around 30% in Turkey.
13. Bacha (2008) explains the reason for that application as follows: "It soon became evident that there was an incentive problem here". It was to the receiving bank's advantage to "declare" a lower profit rate. In a sense, the rates of return were dictated by the returns of the "inefficient" banks. To overcome this problem, BNM revised the rules by setting a minimum benchmark rate for the MII".
14. Vice President of the Treasury Department of Vakif Katılım Bank. The information was gathered through email from him.

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