

**ALTERNATIVE FUNDING SOURCES IN ISLAMIC BANKS IN TURKEY:
AN EMPIRICAL STUDY ON SUKUK**

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ABSTRACT

Having almost 30 years of Islamic Banking experience, Turkish Islamic Banking sector has only 5.6% market share in the Banking Sector and offers limited products and services compared to other countries. Considering almost 90% of Muslim population living in Turkey, we foresee that Islamic Banking sector has huge room to grow through new products. The collected deposits have been the main funding sources of Participation Banks (PBs) in Turkey, as deposits grasp almost 70% share in liabilities. However, the constitution of the majority funding sources as deposits poses some risk for Participation Banks such as short term maturity. There has been significant progress in Islamic Banking in Turkey and government introduced some regulations and attempts to increase the share of PBs in overall banking sector. After that, PBs have started to issue sukuk regularly to international and domestic markets and Sukuks are becoming main alternative funding sources for PBs. Apart from the Sukuk, there are other alternative funding sources for PBs, some of which are murabaha syndication facility, wakala, tier two murabaha sukuk, gold participation accounts, etc. In our paper, firstly we briefly introduced Participation Banking experience in Turkey and comprehensively discussed the recent developments in alternative funding sources in PBs by using current and historical data. In the second place we focused our paper on sukuk issues in both government and private sukuk which are the main alternative funding resource for the PBs recently. Secondary market sukuk data is used to measure its relationship with other financial instruments by using statistical and econometrical methods. Paper concluded with some recommendations for the enlargement of the funding bases of PBs.

Key Words: Turkey, Islamic Banking, Participating Banking, Sukuk, Islamic Finance

Jel Classification: G21, G23, C50

1 PARTICIPATION BANKING IN TURKEY

History of the Islamic banking in Turkey goes back to 1983 with the legislation No. 83/706 decision of Council of Ministers and the decision published in the Official Gazette on 25th, February 1984. Based on this legislation first interest free financial institutions were established and legislation named them not Islamic Banks as Special Finance Institutions (SFIs) because of the secular structure of the state. Firstly, Albaraka Turk and Faisal Finance has become operational in 1985. Afterwards, Kuwait Turk (1989), Anatolia finance (1991), Ihlas Finance (1995), and finally Asya Finance (1996) has been established.

The name of SFIs has led to some misunderstandings in either domestic or also abroad, which cause these institutions to be exposed to some different procedures. These institutions do many operations as other banks, however in accordance with the principle of interest-free. International banking and foreign exchange services were also provided by them. However, SFIs was taken the category of non-bank financial institutions by some correspondent foreign banks due to the lack of bank word in the titles of SFIs. This situation caused that the customers who want to export or import something through the SFIs could not do business with correspondent banks of these countries. With the No. 5411 Banking Legislation, the name of “Special Financial Institution” was changed to “Participation Bank” in 2005.

Banking system of Turkey consists of three banking models which are deposit, investment/development and participation (Islamic) banks. There were four participation banks (PBs) operate in Turkey which are Albaraka Turk, Kuveyt Turk, Bank Asya and Türkiye Finans as of year-end 2014 and their consolidated summary financial positions were stated here below by comparing with the other banking groups:

TABLE 1: TURKISH BANKING SECTOR (AS OF YEAR-END 2014)

Bank Type	Number of Banks	Total Assets		Collected Funds (Deposit)		Funded Credits (Loan)	
		mio TRL	Share (%)	mio TRL	Share (%)	mio TRL	Share (%)
Deposit Banks	34	1,805,427	90.5	987,463	93.8	1,118,887	90.2
Participation Banks	4	104,163	5.2	65,230	6.2	64,065	5.2
Investment & Development Banks	13	84,570	4.2	0	0	57,756	4.7
Total	51	1,994,160	100.0	1,052,693	100.0	1,240,708	100.0

Source: Data compiled from Banking Regulation and Supervision Agency (BRSA)

At the end of 2nd Quarter of 2015, first state owned PB was established and five PBs operate now in Turkey.

2 CLASSICAL FUNDING SOURCES OF PBs

The relationship between funds owner and PB is entirely different from conventional banks. The latter is in debt to depositors whose are creditors against the bank. However, the relationship between funds owner and PB is not debtor-creditor relationship and is a partnership. Fund is considered as capital because it is not provided from debtor however from investor who join profit/loss of the PB. For this reason, PBs become more flexible than conventional banks (Ahmed, 2006, p. 39). However, restricted access to the wholesale funding sources may lessen this flexibility of PBs (Abedifar, Molyneux, & Tarazi, 2013, p. 9).

The fund owners who bring their savings to PBs can be divided into three groups (Tunç, 2013, p. 165):

- **Interest sensitive fund owners:** These customers bring their money to PBs due to interest-free principle. The less profit share return from PBs do not cause this customer to go to other banks to work with interest. This situation may lead customers to go other PBs which give more profit.

- **Return sensitive fund owners:** The priority for this type of customer is not interest-free principle; but higher return. Therefore, if PB pay less profit than the markets, these people invest their money either on PBs which pay more profit share than the markets or the banks that pay high interest. The determinant is “return” in this case.

- **On demand or commercial fund owners:** The quality of relationship between PBs and commercial customers (particularly fund utilized customers); and customers’ satisfaction with their banking services are the determinant factors.

The purpose of PB is to channel savings of people to economic life and risk sharing. PBs pool small savings of wide range of people and extend them to individuals, small and big enterprises which need funding. By doing this, PBs develop economies of scale and increase their effectiveness (El-Gamal, 2006, p. 135).

2.1. SPECIAL CURRENT ACCOUNTS

One of the most significant funding sources of PBs is current account and these are not different from draw accounts of conventional banks in terms of process. There is no return provided to current accounts and funds owner can withdraw his/her money whenever they want.

There are two main views about CA in terms of Islamic fiqh. One view is that this accounts structured based on *wadiah* agreement. Account holders give their money to bank as a *wadiah* and in this case, PBs cannot use that money without permission from account holders. However, in the case of permission, money can be used via giving credit to other customers. Other view is the contract between banks and customers is “*qard al-hasen*” agreement. *Qard al-hasen* means that lending money is taken back without pending for any advantage and an interest-free form. According to this view, PBs can use deposits in them the way they want without any pre-permission. Yet, these money can be withdrawn at any time and banks are responsible for paying back these money to account holders at the same amount. PBs operate according to second view in Turkey and may charge some fees such as custody services, account management for those accounts.

PBs may take, including custody services fee, account management fee from those accounts. Account holders give permission for using their deposits by PBs. However, PBs have to pay back completely these deposits when desired. Owing to that fact that there is no risk in terms of fund owners, the profit, occurred as a result of loaning on by Pbs, is not allocated with them, which bases upon that one of the most important principle of Islam is “if there is no risk, there is no profit”. Islamic banking brings the principle of sharing risk/profit instead of interest in financial intermediation.(Akgunduz, 2009, p. 50)

There is some discussion about the profit by accrued deposits those accounts which have no cost in the sense of banks. These deposits are given to banks as escrow and account owners do not expect any profit. The loss or profit from sources as giving credit by bank remains directly in bank. It is expected that PBs may distribute at least a portion of these money which is generated by using current accounts which have no cost for PBs to needy people as qard al hasen. However, PBs do not utilize current account by this way (Saeed, 1996, p. 144).

Share of current accounts in total deposit in PBs is higher than total banking sector in Turkey. At the end of 2014 CA's share is 24.5% in PBs and %18.8% in banking sector.

2.2. PARTICIPATION ACCOUNTS

This account is called as investment account in international Islamic Banking practices however “participation” is used in Turkey, also known as profit-and-loss sharing (PLS) deposit. Participation accounts is the main funding sources of PBs and structured according to *mudarabe* partnership. In this account, depositors are named as *rabbul mal*; PBs are named as *mudarib* in terms of Islamic terminology.

Turkish Banking Law No. 5411 describes participation accounts as “*Accounts constituted by funds collected by participation banks that yield the result of participation in the loss or profit to arise from their use by these institutions, that do not require the payment of a pre-determined return to their owners and that do not guarantee the payment of the principal sum.*”

In these accounts, the funds of depositors' is utilized to credit customers in accordance with the principles of Islamic banking by the PBs. If PBs generates profit from utilization of funds, it is shared between depositor and PBs as per pre-agreed ratio. If return is negative, it is absorbed by the depositor and decrease the value of the invested deposit.

Participation account holder is not only customer of the bank, but also become temporarily as a partner of the PB because depositor will be affected directly from PB's profit or loss as shareholder. (Akgunduz, 2009, p. 50).

Participation accounts can be opened in kind of TL or foreign exchange. Their maturities can be, 1 month in the shortest, 3, 6, 12-month and one year and older (monthly, 3-month, 6-month payment of profit share). Opened with a minimum term of 5 years, monthly or quarterly time periods specified in the contract that allows money deposits cumulative participation accounts are also available.

Profit distributed to participation accounts have generally parallel trend with the interest paid to deposit holders in other commercial banks. The profit share of participation banks follows the interest ratio of commercial banks according to the research on Islamic Bank in Malaysia and Turkey (Cevik & Charap, 2011). The reason behind this similarity is that PBs are operating in the same environment with conventional bank in Turkey and taking the interest rate charged to credits as benchmark for funded credits. More than 90% of the funded credits of PBs consist of murabaha type (cost-plus mark-up) financing which yields are much closed to conventional interest rates.

PBs cannot guarantee a certain return to saver as in other interest-bearing bank. The only thing they can do to say how much profit they distributed to what account group last week. To be achieved profit / loss may be greater than this figure or could be less. In fact, even if all the money invested is likely to be lost.

The loans from these accounts can be bankrupt; however, the diversification bank's investment portfolio and a careful selection of projects and individuals reduce the risk of bankrupt. When looking on the amount of PBs' NPL, it can be seen less than 3%. That is, for only 3 TL of every 100 TL of loans is a problem in the point of repayment. 3 TL does not mean that the loan bankrupts totally; it means only a delay for repayment. If considering the total amount of PBs' loans; although theoretically reflecting loss on investment accounts is possible, in practice it is not possible for the moment. Funds are directed to project or individuals with the highest credit instead of the most promising project in order not to loss.

There is another type of participation account in Turkey named as special fund pool. Depositor stipulates PBs about the issue of deposits will be used in which project or sector in this accounts application, which is also called restricted investment account.

The money collected for these accounts is used in predetermined project or other investment financing. These accounts are followed up separately from investment accounts and the profit, obtained restricted investment accounts, is not transferred to other accounts. About restricted investment accounts, providing information to BRSA following the creation and liquidation within fifteen days and restricted investment accounts liquidate at the end of financing period.

Participation banks, pursuant to the 60 (7) of the Law, may constitute pool of special funds with maturities no less than three months by collecting funds in independent accounts so as to be utilized in financing of preset projects or other investments, without abiding the maturity and types established by the Central Bank of the Republic of Turkey. Participation accounts belonging to the funds collected in this way are operated as of their maturities and independent from other accounts and the funds collected cannot be transferred to the other maturity groups. The Agency is informed in fifteen days after establishing and liquidation. Pool of special funds is liquidated at the end of the financing period.

In Turkey, banks instead of depositor decide the financing is used in which project unlike different from world-wide application. Although there is no giving guarantee to get back the deposits in these kinds of accounts, the expectation of depositor for project to be profitable lead fund owners to bring money to bank. These funds collected project-based are closely associated with either success or failure of project. The profit or loss obtained these projects are reflected to those accounts after deducting the share of bank.

While legislation allows opening these kinds of account, customers do not prefer those accounts due to high risk. In addition to this, maybe the real reason is that either PBs or customers do not want to take risks. The desire of savers to reacquire in the short term does not make possible rooted investment. Indeed, if financing to profitable and safety project, than the investment account owners get higher return.

2.3. ALMS (ZAKAT) FUNDS

In order to collect alms of partners, investors or funds owners and to distribute to needy people, there are alms funds in some Islamic banking practices in the world. Yet, there is no such product in the Turkey participation banking application.

Deposited money in alms fund is monitored completely in different from the bank's own accounts and balance sheet. A large part of this money gained from alms of the bank's year-end profits. The money collected are used to build mosques, hospitals and for elderly, sick and poor students. Also, it is granted in the form of qard al-hasen to individual can accept alms in terms of jurisprudence.

While there are alms funds in some of interest-free banks, there are some views about the using at least a small portion of money collected by other interest-free banks from current accounts in the form of qard al-hasen because this money cannot create any cost on bank. The fact that current account has the obligation of withdrawn at any time when demanding obstructs to loan such kind. However, using at least a small portion of the money in these accounts in the form of qard al-hasen contribute social welfare, fair distribution of income and equality of opportunity. When we look at participation banks profitability, it have seen that they have facility to support this kind of products in addition to corporate social responsibility projects.

2.4. PRECIOUS METAL DEPOSITS

Most of the Turkish household keep their savings in a traditional way as gold. These resources do not pass to the financial system and real economy. According to a study (Aktas, Aldan, Aydin, Bozok, & Kanli, 2012, p. 6), there are at least 2,189 tons of gold stocks corresponding to USD 115 billion in Turkey. As a result of using gold in the form of either investment or jewelry in our country, gold stock is likely more that amount.

Central Bank of Turkey (CBT) have introduced some incentives in order to be channeled these gold investment to financial system.

CBT has taken the following decisions in September 12, 2011:

“With the same Communiqué, gold deposit accounts, showing a rapid increase in recent periods, have also been included in the coverage of the reserve requirements. On the other hand, as a new flexibility provided to the banking system, the facility of maintaining reserves requirement as “standard gold” at the accounts of Central Bank against the total amount of reserve requirement maintained for the precious metal deposit accounts and up to 10 percent of reserves requirement for foreign currency liabilities excluding precious metal deposit accounts, has been provided.”

Fund owners bring their gold to banks due to primarily their ‘security’ concern. In addition, some banks and PBs provide return to the gold accounts. It is not easy to extend collected money in account gold to credit customers. For this reason, keeping gold as reserve requirement instead of TRL in CBRT enable PBs serious opportunity.

PBs have significant share in gold account (banking) especially, Kuveyt Turk PB has been one of the pioneers not only in participation banks but also in total banking sector. The amount of the collected precious metals account of PBs has increased to equivalent TL 3.4 billion at the end of 2014. Kuwait Turk and Bank Asya has distributed profit share to customers with investment accounts as of the third quarter of 2011. The other two participation banks collect the precious metals via current accounts. Albaraka Turk began to offer their customers gold investment accounts in the last quarter of the 2013.

TABLE 2: PRECIOUS METAL DEPOSITS IN PBS (TRL EQUIVALENT, THOUSAND)

		2014	2013	2012	2011	2010	2009
Albaraka Turk	Current Acc.	132.119	188.350	212.757	324.813	47.659	12.254
	Partici. Acc.	206.996	152.577	69.251	0	0	0
Bank Asya	Current Acc.	343.438	834.016	868.745	951.984	123.372	37.850
	Partici. Acc.	470.909	519.954	442.025	0	0	0
Kuveyt Turk	Current Acc.	606.865	745.794	712.098	727.254	124.032	58.208
	Partici. Acc.	1.158.010	1.424.178	1.449.995	1.205.333	328.082	119.316
Turkiye Finans	Current Acc.	278.187	404.567	482.033	521.400	375	0
	Partici. Acc.	220.218	254.439	24.227	0	0	0

Source: Data compiled from Independent Auditors' Report of each PBs

The criteria applied in gold investment accounts vary in PBs limits such as 100gr, 250gr. The rates of profit share to be applied in between customers and PBs are different. These rates are already changed according to needs of that time and situation of sector as with the other investment accounts.

2.2. ALTERNATIVE FUNDING SOURCES IN PARTICIPATION BANKING

2.2.1. MURABAHA SYNDICATED LOAN

Banks are in need of source other than deposits. The maturity of deposits is short and these sources are withdrawn at any time when demanded by customer, which lead to need of new alternative sources. Banks have borrowed funds from abroad in a comfortable way due to the fact that Turkish economy is strengthened and recovery after the global crisis very quickly. However, Banks are facing in providing money from abroad in comfortable way because of the monetary tightening policy of FED in recent years. These resources can be provided such as by issuing debt instruments in the form of syndicated loans as a consortium.

PBs both domestically and from abroad are able to provide funds without interest. Murabaha syndicated loan is one of those methods, which is used in first time at the project of upgrading Atatürk's Airport. HSBC together with Islamic Development Bank provided the amount of USD 100 million resources to TAV with 24-month maturity for this project. Syndicated loan (financing) is defined as the following in the AAOIF's standards:

"It refers to the participation of a group of institutions in a joint financing operation through one of the Shari'a-permitted modes of financing. The accounts of the syndicated financing operation are kept independent from the accounts of the participating institutions."

Murabaha syndication facility is interest-free fund borrowing instrument for PBs from international investors which are mostly Islamic institutions. Participant of murabaha syndication can be conventional international investors also. Asset trade is carried out in the transaction in order to be ensured the murabaha syndication Sharia compliant.

Parties included in murabaha syndication are:

Book runner: It is the bank or banks, which contact with banks manages process and participate in syndication, control the process of marketing and documentation.

Investment Agent: There must be purchasing and selling transaction between participants and PB in order to be provided interest free principle. Investment agent is responsible for this purchasing and selling process.

Participant Banks: The banks that supply funds to PB in murabaha syndication.

Obligor: PB which borrow fund through murabaha syndication

PBs have provided USD 5.750 billion 2007-2014 period by using the murabaha syndication facility from international investors most of them Islamic banks. Countries of the participant banks are ranging from MENA region to Gulf. In recent years, investors from Asia and Europe have shown interest to murabaha syndication. Currencies of the murabaha syndication are USD and EURO and maturity generally one or two years.

TABLE 3: MURABAHA SYNDICATION TRANSACTIONS OF PBS

Name of PB	Date	Amount (million)	Total USD Equivalent	Maturity (year)	Cost	Participants
Albaraka Turk	15.9.2010	USD 98 + EUR 108,5	240	1	libor+2	22 banks from 14 countries

	15.9.2011	USD 202,5 + EUR 103,3	350	1	libor+1,5	25 banks from 17 countries
	13.9.2012	USD 293,2 + EUR 124,5	450	1	libor+2	32 banks from 16 countries
	24.9.2013	USD 61 + EUR 77,5	166	1	libor+1	23 bank from 15 countries
		USD 135 + EUR 98	264	2	libor+1,35	
	23.9.2014	USD 151 + EUR 54,4	220	1	libor+1,1	17 banks from 12 countries
	13.4.2015	USD 268	268	733 days	libor+1,25	14 banks 9 countries
Bank Asya	12.4.2007	USD 89	89	1	libor+0,65	40 banks
		USD 86	86	2	libor+0,85	
	8.4.2010	USD 121,5 + EUR 99,2	250	1	libor+2,25	26 banks from 17 countries
	31.3.2011	USD 171 + EUR 94,5	300	1	libor+1,5	26 banks from 19 countries
	19.4.2012	USD 201 + EUR 96,5	325	1	libor+2	28 banks from 17 countries
	2.5.2013	USD 230,5+ EUR 115,3	380	1	libor+1,25	28 banks from 16 countries
Kuveyt Turk	2007	USD 200	200	2	N/A	N/A
	29.4.2009	USD 115	115	1	libor+2,5	N/A
	27.12.2013	USD 275+ EUR 83	390	1	libor+0,9	28 banks from 16 countries
				2	libor+1,25	12 banks from 9 countries
	17.12.2014	USD 300+ EUR 30 EUR 10	350	2	libor+1	12 banks from 6 countries
				1	libor+0,85	
Türkiye Finans	17.3.2011	USD 176+ EUR 85,5	300	1	libor+1,5	20 banks from 18 countries
	3.11.2011	USD 75	75	5	N/A	1 bank from 1 country
	14.5.2012	USD 251,5+ EUR 76,5	350	1	libor+2,0	29 banks from 15

						countries
19.6.2013	USD 140	140	1	libor+1,0	28 banks from 14 countries	
	USD 360	360	2	libor+1,35		
30.6.2014	USD 253,5 + EUR 72	350	1	libor+1,0	21 banks from 12 countries	

Sources: Data compiled by authors from websites of PBs, www.kap.gov.tr.

After the 2008 crisis, major central banks (FED, ECB, BoJ etc) have introduced monetary easing policies and pumped liquidity to economies especially markets. Developing countries including Turkey have intensely benefitted from this plenty of liquidity with capital inflows. Interest rates in international markets dropped historically low levels and Turkish banks have issued some debt instruments and organized syndication credits and borrowed lots of cheap foreign money from international investors. Also PBs have used some interest free instrument to benefit from liquidity and one of the most significant tool is murabaha syndication and total provided funding reached to USD 5,7 billion in the period of 2009-2014.

2.2.2. WAKALA

Another type of alternative funding method of PBs is *wakala* which is an agency agreement. The Wakala Investment is a contract between two parties where the Muwakkil (“principal”) as the capital owner appoints a Wakil (“agent”) to make specific or general Shariah compliant investments by using the Muwakkil’s fund. Wakil charge

The process of wakala agreement includes these steps:

- The principal appoints the agent by entering into a wakala. This agreement will document the terms of the agent’s appointment and the fees it will receive for carrying out its work, together with a list of its duties.
- Following its appointment, the agent will undertake certain tasks as documented in the wakala as agent on behalf of the principal. These will include investing money received by it from the principal into the business in relation to which the agent has been appointed.
- The agent will be contractually obligated to pass on any profits generated by the business to the principal. It must also perform its obligations according to the instructions of the principal.¹

Wakala agreements are generally short term (generally 1 - 4 months). PB acts as a wakil and usually uses the funds which are borrowed from financial institutions through wakala agreements in commodity trading in the international markets (commodity murabaha). Also the funds can be extended to credit customers of the PBs.

One of the leading PB in Turkey (Albaraka Turk) provides huge amount of funds through wakala agreement (USD 360 million and EUR 113 million at the end of 2014). Albaraka Turk especially is pulling idle funds of the other sister banks of their main shareholder (Albaraka Banking Group). MENA and Gulf region Islamic banks have some difficulties to find credit customer to utilize their funds thus they invest excess liquidity to PBs through wakala agreement.

2.2.3. SUKUK

Borrowing methods of Islamic Banks vary over the years. Liquidity scarcity and tight competition direct them to new methods which have to be compliant with Sharia. As a result of this search, sukuk came to light as a new financial product in the 1990s (Ahmed, 2006, p. 289).

The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), defines sukuk as “certificates of equal value representing undivided shares in the ownership of tangible assets, usufructs and services or (in the ownership of) the assets of particular projects or special investment activity, however, this is true after receipt of the

¹ <http://www.ifre.com/exploring-islamic-agency/1611511.fullarticle>

value of the sukuk, the closing subscription and the employment of funds received for the purpose for which the sukuk were issued” (AAOIFI, 2010, p. 307).

Sukuk are also named as Islamic Bonds in international practices. But sukuk is completely different from conventional bonds. Main differences between sukuk and bonds are shown below (Jamaldeen, 2012, p. 210):

TABLE 4: SUKUK & CONVENTIONAL BONDS

	Conventional Bonds	Sukuk
Asset ownership	Bonds don't give the investor a share of ownership in the asset, project, business, or joint venture they support. They're a debt obligation from the issuer to the bond holder.	Sukuk give the investor partial ownership in the asset on which the sukuk are based.
Investment criteria	Generally, bonds can be used to finance any asset, project, business, or joint venture that complies with local legislation.	The asset on which sukuk are based must be sharia-compliant.
Issue unit	Each bond represents a share of debt.	Each sukuk represents a share of the underlying asset.
Issue price	The face value of a bond price is based on the issuer's credit worthiness (including its rating).	The face value of sukuk is based on the market value of the underlying asset.
Investment rewards and risks	Bond holders receive regularly scheduled (and often fixed rate) interest payments for the life of the bond, and their principal is guaranteed to be returned at the bond's maturity date.	Sukuk holders receive a share of profits from the underlying asset (and accept a share of any loss incurred).
Effects of costs	Bond holders generally aren't affected by costs related to the asset, project, business, or joint venture they support. The performance of the underlying asset doesn't affect investor rewards.	Sukuk holders are affected by costs related to the underlying asset. Higher costs may translate to lower investor profits and vice versa.

There are many financing methods in Islamic Banking and sukuk can be structured on one of these methods or mix of them. Some main types of sukuk are mudaraba, musharaka, murabaha, ijara, wakala, salam, istisna and hybrid, etc. In order to be issued a sukuk, there must be special purpose vehicle (SPV) which is performing as a trustee for all the activities for investors with respect to registration, distributions and redemption. Periodical profit share payments is done to SPV by PB and after SPV distributes them to investor according to their share in the sukuk.

Global sukuk issuance has increased after the crises thanks to the monetary easing policy of major central banks. At the end of 2014, total amount of sukuk reached to USD114 billion and Malaysia is still the biggest share in global sukuk market.

Turkey got late to enter the global sukuk market and first sukuk issuance was done by Kuveyt Turk Participation Bank (KTPB) in 2010 with USD 100 million. KTPB used KT Turkey Sukuk Limited as a SPV which were located in Cayman Island instead of Turkey because of the lack of legislation related with sukuk in Turkey. Turkish government introduced a legislation with regard to sukuk merely in 2010 and named them as a lease certificates.

Thanks to the economic performance of Turkish economy and closed relationship between especially Gulf region, Turkey issued first sovereign sukuk as USD 1.5 billion with 5.5 year maturity in September, 18th 2012. Demand for the issue was nearly 5 times of the actual size from 250 international investors and 58% of the certificates have been sold to investors in Middle East, 13% in Europe, 12% in Asia, 9% in Turkey and 8% in US. This successful issuance and strong demand directed the government to issue USD and TRL currency sukus regularly.

TABLE 5: LIST OF ALL SUKUKS ISSUED BY TURKISH TREASURY (YEAR TO DATE)

Issuer Name	Announce Date	Currency	Amount	Maturity	Type
Treasury	18 Feb 15	TRL	1.80 b	15 Feb 17	İjara
Treasury	18 Nov 14	USD	1.00 b	25 Nov 24	İjara
Treasury	01 Oct 14	TRL	1.84 b	28 Sep 16	İjara
Treasury	19 Feb 14	TRL	1.33 b	17 Feb 16	İjara
Treasury	10 Oct 13	USD	1.25 b	10 Oct 18	İjara
Treasury	20 Aug 13	TRL	1.8 b	19 Aug 15	İjara
Treasury	20 Feb 13	TRL	1.5 b	18 Feb 15	İjara
Treasury	3 Oct 12	TRL	1.6 b	1 Oct 14	İjara
Treasury	18 Sep 12	USD	1.5 b	26 Mar 18	İjara

Sources: Data compiled by authors from websites of Turkish Treasury, www.treasury.gov.tr.

Turkish Treasury have issued 9 sukuk (three of them are USD) since 2012. TRL and USD sukuk amounts have reached to 9.9 billion, 3.8 billion respectively. All of them are ijara type sukuk because Treasury has many tangible assets (buildings etc) and easily securitize them.

Sovereign sukuk issuance have very positive effect on corpora sukuk issuance especially by PBs and attracted attentions of international investors to Turkey. With the help of tax neutrality measures (Finance Bill) for sukuk in 2011, PBs have accelerated sukuk issuance in different currencies. Under the Finance Bill a number of amendment has been done in «Income Tax Law, Corporate Tax Law, VAT Law, Stamp Duty Law and Charges Law» to eliminate the tax obstacles in front of Sukuk Issues in Turkey. On June 7th, 2013, a communiqué (“Sukuk communiqué”) prepared by Capital Markets Board (CMB) was published in Official Gazette and came into effect. The new legislation defined and enabled the corporates to make use of different sukuk structures such as Mudaraba, Musharaka, Murabaha, Salam or Istithna. Type of the sukuk issuance of PBs also have varied thanks to this legislation.

TABLE 6: LIST OF ALL SUKUKS ISSUED BY PARTICIPATION BANKS (YEAR TO DATE)

Issuer Name	Announce Date	Currency	Amount (million)	Maturity
Kuveyt Türk *	29 Sep 14 / 7 Jul 15	TRL	1.173	Less than 1 year
Türkiye Finans	22 Jun 15	MYR	210	5 years
Kuveyt Türk	15 May 15	MYR	200	5 years
Kuveyt Türk	31 Mar 15	MYR	300	5 years
Türkiye Finans**	30 Mar 15	TRL	100	5 years

Türkiye Finans	26 Feb 15	MYR	150	5 years
Kuveyt Türk	20 Jun 14	USD	500	5 years
Türkiye Finans	03 Jul 14	MYR	800	5 years
Albaraka Türk	23 Jun 14	USD	350	5 years
Kuveyt Türk	19 Jun 14	USD	500	5 years
Türkiye Finans	15 Apr 14	USD	500	5 years
Türkiye Finans	27 Jan 14	TRL	100	5 years
Kuveyt Türk	20 Nov 13	TRL	100	1 year
Türkiye Finans	6 May 13	USD	500	5 years
Bank Asya	5 Mar 13	TRL	125	1 year
Albaraka Türk***	6 May 13	USD	200	10 years
Bank Asya***	25 Mar 13	USD	250	10 years
Kuveyt Türk	30 Oct 11	USD	350	5 years
Kuveyt Türk	23 Aug 10	USD	100	3 years

*Kuveyt Turk have issued 19 sukuk for selling institutional investors between 29 September 14 and 7 July 2015.

** This is the first wakala sukuk in Turkey and Türkiye Finans provided the fund for real sector firm (Zorlu Enerji).

***These are tier II sukuk as a subordinated loan.

PBs have accelerated sukuk issuance in recent years and started to provide intermediary services to other real sector firms. For example Albaraka Turk founded one more SPV named as Bereket Varlık Kiralama A.Ş. for only to serve real sector firms.

3. RESEARCH METHODOLOGY

In this study we examined relationship between sukuk and bonds, which are always compared to each other. Due to secondary market activities are shallow in Turkish Lira dominated sukuk, USD dominated sukuk data was used in the analysis, which was issued Turkish Treasury. Eurobond data used to find out relation with USD dominated sukuk due to sukuk is also based on foreign currency. Researched data is limited to dates from 21/09/2012 to 25/05/2015 which 685 observations during the this period. Our analysis was conducted by using daily data of sukuk and Eurobond which were issued by Turkish Treasury. We have selected same maturity and currency (USD) in order to compare them in the correct way and achieve consistency. The data were obtained from Bloomberg terminal and two borrowing instruments are still traded in over the counter market.

Johansen cointegration test is used to measure long term relationship between Turkish Treasury's sukuk and eurobond. Johansen cointegration test can be applied to difference series which are linear in the same level. In other words, series must be linear in d level, which refer the differenciation level and indicated as $I(d)$ symbol. When two time series are $I(d)$ level, regression and residuals of these series will be $I(d)$ as well. If two series are cointegrated in the same d level, that means there is a long term co-movement of these series. Johansen cointegration test is based on VAR models. Its process is as follows:

- a- Unit root test must be made to find out where series are linear or not.

- b- Then series may be differentiated in the same level $I(d)$, if so, test can be applied.
- c- VAR model needs to be created to apply cointegration test.
- d- Proper lag length must be found out to comply with the process.
- e- When lag length is found out, Johansen model needs to be chosen for decision making.

Lastly we use Granger causality based on VAR model to find out the direction of the relationship between sukuk and eurobond.

4. FINDINGS

Firstly, Augmented Dickey-Fuller unit root test applied for both series. As it is shown on the Table 7. TrSukuk and Eurobond represent sukuk and eurobond issued by Turkish Treasury.

TABLE 7: ADF UNIT ROOT TEST RESULTS

Unit root test for Eurobond		Level		1st Difference	
		t-Statistic	Prob.*	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.608352	0.7891	-8.446878	0.0000
Test critical values:	1% level	-3.971687		-3.971707	
	5% level	-3.416479		-3.416489	
	10% level	-3.130560		-3.130566	
*MacKinnon (1996) one-sided p-values.					
Unit root test for TrSukuk		Level		1st Difference	
		t-Statistic	Prob.*	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.608352	0.8056	-8.157877	0.0000
Test critical values:	1% level	-3.971666		-3.971707	
	5% level	-3.416469		-3.416489	
	10% level	-3.130554		-3.130566	
*MacKinnon (1996) one-sided p-values.					

H_0 : Series has got unit root.

H_1 : Series has not got unit root.

Both series have unit root in the $I(0)$ level. As it is seen from the Table 7. Prob. values are higher than 0.05 significance level. Prob values $0.7891 > 0.05$ and $0.8056 > 0.05$, so we accept null hypothesis. When both series tested in $I(1)$ level which is the 1st difference level of the series, there is not any unit root and series are linear in the same level. Due to that result, cointegration test is applied. Var model solved for series and choose the lag length. Table 8 show test for the lag length for several criterion.

TABLE 8: LAG LENGTH VALUES

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-3261.956	NA	52.80765	9.642410	9.655756	9.647577

1	188.9316	6871.191	0.001997	-0.540418	-0.500380	-0.524917
2	237.2637	95.95044	0.001752	-0.671385	-0.604654	-0.645550
3	258.8383	42.70302	0.001663	-0.723304	-0.629881*	-0.687135*
4	264.9227	12.00689	0.001653	-0.729461	-0.609346	-0.682958
5	266.8271	3.746931	0.001663	-0.723270	-0.576463	-0.666433
6	268.8814	4.029836	0.001673	-0.717523	-0.544023	-0.650351
7	282.1676	25.98361	0.001628	-0.744956	-0.544764	-0.667451
8	290.9695	17.16165*	0.001605*	-0.759142*	-0.532257	-0.671302

* indicates lag order selected by the criterion LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error AIC: Akaike information criterion SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Minimized information criteria values are indicated with “*” sign in the Table 8. Akaike information criteria suggests longer lag length than Schwarz and Hannan-Quinn information criterias. We have chosen the lag length as 3, which suggested by Schwarz and Hannan-Quinn information criteria. After lag length decided, VAR model for is solved according to 3 lag length.

There are several models for solving Johansen cointegration tests. Before applying Johansen cointegration test, cointegration model needs to be determined. Table 9 shows comparison between cointegration models. According Table 9, we need to consider minimum values for the Akaike and Schwarz criterion values. Schwarz and Akaike criteria suggests different models for the cointegration test. When we consider the values, Akaike criteria has the minimum value, for this reason 4th model has determined for the cointegration test. This model considers linear data trend and intercept test model. Due to determination of the cointegration relation model, Johansen cointegration test applied for data of the Eurobond and sukuk to find out the relationship between them.

TABLE 9: DETERMINING COINTEGRATION RELATION MODEL

Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	0	0	0	1	1
Max-Eig	0	0	0	1	1
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	257.7333	257.7333	263.0769	263.0769	263.5336

1	263.1240	263.1243	264.9460	278.3994	278.5001
2	263.1622	264.9919	264.9919	280.2625	280.2625
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	-0.721684	-0.721684	-0.731504	-0.731504	-0.726971
1	-0.725768	-0.722832	-0.725245	-0.761819*	-0.759178
2	-0.714133	-0.713633	-0.713633	-0.752606	-0.752606
Schwarz Criteria by Rank (rows) and Model (columns)					
0	-0.641973*	-0.641973*	-0.638508	-0.638508	-0.620690
1	-0.619488	-0.609909	-0.605680	-0.635611	-0.626327
2	-0.581282	-0.567497	-0.567497	-0.593186	-0.593186

Table 10 shows the cointegration test results for our data. As it is seen from the Table 10, series are cointegrated which means they have long term relationship. If two series are cointegrated, this can be interpreted as Eurobond and TrSukuk effect each other in the long term.

TABLE 10: COINTEGRATION TEST RESULTS

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.044002	34.37106	25.87211	0.0034
At most 1	0.005457	3.726119	12.51798	0.7813
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.044002	30.64494	19.38704	0.0008
At most 1	0.005457	3.726119	12.51798	0.7813
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

To find out the direction of the affect among the series. Granger causality test was applied.

TABLE 11: GRANGER CAUSALITY TEST RESULT

Dependent variable: EUROBOND			
Excluded	Chi-sq	df	Prob.
TRSUKUK	24.60350	3	0.0000
All	24.60350	3	0.0000
Dependent variable: TRSUKUK			
Excluded	Chi-sq	df	Prob.
EUROBOND	16.24100	3	0.0010
All	16.24100	3	0.0010

Granger causality test is solven basen on VAR model related to their cointegration test results. Series are lineare in the same level which is $I(1)$. As it seen from the Table 11, there is bidirectional relationship between two series, which means Eurobond effects Trsukuk as well as vice versa.

5.CONCLUSION

Participation banking in Turkey has drawn attention of international investors and experts in recent years. However, market share of PBs is still very low and at the end of 2014 share in total banking sector is only around 6%. In order to be increase the PBs share, Turkish government have introduced new regulations and incentives to the sector. Also, first state owned PB (Ziraat Katılım) has started its operation as of 29 May 2015 and two more new state owned players (Halk Katılım and Vakıf Katılım) will be operative at the end of 2015. PBs intensively need funding to increase share to more than %10. There are some classical funding sources of PBs such as current and participation accounts which were explained in detail. In recent years, thanks to leading role of the government and abundant liquidity in international markets, PBs have provided significant funding from domestic and international investor by using alternative instruments. High dependency to current and participation accounts have started to decreased. Share of alternative funding sources which are sukuk, murabaha syndication, wakala etc. in total funding base have reached to more than %25. For this reason, analyzing funding sources of PBs which is the main driver of growth is significant for evaluating the growth trend of PBs. One of the main wholesale funding sources of PBs is sukuk which have been used intensively since 2012 due to the first sovereign sukuk issuance by Turkish treasury. PBs provides huge amount of money from international markets by using sukuk however these issuance are not enough yet to be conducted healthy secondary market. For this limitation we have used Treasury sukuk which is traded in high volumes for comparison of Eurobond which includes interest. Johansen cointegration test is used to find out relationship between Eurbond and Trsukuk. Series are cointegrated which means they have long term relationship.

There are several studies made to compare interest based bonds and interest free sukuk securities. Some studies focud on retun of the securities, (Ariff & Safari, 2012) found that there is a significant difference in yield of sukuk against yield of conventional bonds, and (Fathurahman & Fitriati, 2013) found that sukuk offering yield (yield) is higher than bonds and the average of the sukuk and conventional bonds differ significantly overall. Some studies have investigated market response to sukuk and conventional bond issuance. (Godlewski, Turk Ariss, & Weill, 2011) analyzed stock market reactions to announcements of sukuk and conventional bond issues by using data of Malaysian public companies, this paper. They showed that stock markets react differently to issuances of both securities. Also, it was found that market give negative reaction to sukuk while there were no notable response to conventional bonds. However, (Alam, Hassan, & Haque, 2013) in their study indicated that the absence of significant stock-market reaction to conventional bond and sukuk announcements over a larger time frame. Some studies made Granger causality tests to find out relationship between bonds and sukuk. (Ariff & Safari, 2012) foudn that there is a significant difference in yield of sukuk against yield of conventional bonds and there is no casual relation between two securities. And (Safari, Ariff, & Mohamad, 2013) showed that there is no equivalence and the yields of şukuk instruments are significantly higher than yields of conventional bonds.

When literature about sukuk and bond comparison studies taken into considation, there are significant differences between sukuk and bonds. However, some studies did not found any significant relationship between sukuk and bonds. According to our study, sukuk and Trsukuk has long term relationship which means they are cointegrated. Also granger causality says in the contrast of the studies mentioned in the literature, sukuk and Eurobond effects each other. These series have bidirectional relationship, which indates sukuk effects Eurobond and vice versa.

In sum, sukuk issues by Turkish market could not be distinguished from the bond market. However, literature says the contrast. This directs us there is big need for further studies need to be made for Turkish sukuk market to define the problems. We can say that market perceive sukuk similar to bonds. Further studies can be focused on relationship between yields of the sukuk and bonds.

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