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THE RATIONAL ISLAMIC ACTOR? EVIDENCE FROM ISLAMIC BANKING

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The Rational Islamic Actor? Evidence from Islamic Banking†

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Abstract: Islamic banks create an interest in their own right as a rising branch in financial intermediation, particularly in the post-crisis era. In addition, they also deserve the attention of the students of Islamism due to their possible connection with Islamic movements. Through a comparison of Islamic and conventional banking, we analyze the motivations and behavior of Islamic economic actors who determine the cash flow to Islamic banks. Our findings suggest that, in contrast to popular views that portray these actors as ideologues or financiers of radical Islam, they have pragmatic motivations and may adapt to liberal systems to seize economic incentives.

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**The Rational Islamic Actor? Evidence from Islamic Banking**

The rise of Islamic banking creates an interest in its own right as a rising branch in financial intermediation, particularly in the post-crisis era. On the other hand, it also deserves attention from the students of Islamism due to its possible connection with Islamic movements. In addition, economic behavior’s suitability for empirical analysis allows us to bring new empirical evidence to the popular but rather speculative debate on the motives of Islamic actors. A better understanding of the preferences of Islamic economic actors, particularly the relative weight of religious and pragmatic interests, helps to gauge the direction that Islamic movements can take in a certain context.

Our study on Islamic banks and their customers reveals important conclusions about Islamic actors and challenges some dominant assumptions. First, in contrast to popular views that consider Islamic economic actors as financiers of radical Islam, we find that these have pragmatic motivations and they may adapt to liberal systems to seize economic incentives. Our findings contradict exceptionalist assumptions that portray Islamic actors as essentially different, and particularly, more ideological than their counterparts. We find that many Islamic actors pursue self-interest as their non-Islamic counterparts and they are open to reconsider their behavior if the otherwise preferable option becomes too costly. Finally, we argue that this finding has political-economic implications as it may reflect Islamic actors’ chances to become part of liberal systems. If “rational” behavior is a prerequisite of liberalism, as suggested by

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1 Islamic banks grow with an annual rate of 20% while they have a global asset value of $1 trillion, as of 2011 (IFSI, p.9-10)
seminal studies such as Przeworski (1991)², then one can argue that Islamic actors can satisfy this requirement.

The Islamic Finance Movement and its Discontents

Modern Islamic banks were originally formed to solve the fiscal problems of Muslim actors and thereby help financing an Islamic society. Because earning interest on cash balances, namely *ribha*, is considered a major sin in Islamic faith, doing business with conventional banks constitutes a problem for devout Muslims. The inherent structure of Islamic banks, also called “participation banks” in Turkey, are different from conventional banks. Instead of taking deposits and issuing loans that are based on the principle of a pre-determined interest rate, Islamic banks engage in partnerships with their customers, where profits as well as losses are shared with the customers. Net profits generated as a result of lending activities determines the profit shares offered on “participation accounts” which is an analogue to savings accounts in conventional banks.³ Islamic banks do not extend direct loans to their borrowers either.⁴ Financing takes place without issuing direct loans or charging an interest but in the form of a trade agreement. Enabling devout individuals to earn money without interest, these banks argue that they help financing an Islamic society. Further, they suggest that they also contribute to the broader economic environment by bringing new- and otherwise idle- capital into the market.

³ Participation accounts typically take the form of “mudharaba contracts.” In this contract, the bank and the customer engage in a business venture where the customer is the depositor and the bank, the “mudharib” manages the money and shares any profits or losses with the customer.
⁴ Loans are often issued via “mudharaba” or “murabaha” contracts. In this type of mudharaba, the bank becomes the creditor and the customers is the “mudharib” who is the worker or manager of the business jointly owned with the bank. “Murabaha” is a more popular funding option where the bank purchases a commodity that the customer wishes to purchase. The payment goes to the seller of the commodity. The bank then resells the commodity to its customer for the original price plus a profit margin. The customer pays back his debt in installments.
Islamic financial institutions rose mainly in the 1970s with the emergence of the oil revenues in the Middle East. The increase in oil prices in the past ten years and the economic rise of Asian Muslim nations contributed to the growth of the Islamic financial sector. Islamic banks made another leap forward following the global financial crisis after 2007. While conventional banks who held “toxic” assets faced losses and subsequent shortages of liquidity, Islamic banks remained immune to such problems as they stayed away from such assets. Thus, Islamic banks became a preferable alternative for not only Muslim investors who avoid interest because of religious restrictions but also for other customers who seek alternative forms of investment.

Political factors, most particularly the rise of modern Islamic movements in the Muslim world since late 1970s, also played a critical role in the rise of Islamic banks. The rise of Islamism undoubtedly created more demand for Islamic economic investment alternatives. Under the circumstances, even secular states such as in Turkey or Malaysia, promoted Islamic banking sector, not simply to respond to such demands but also to send a political message to Islamic constituencies and receive their support.5

The rise of Islamic banks stimulated debates regarding their relationship with Islamist movements. Skeptics suspected that these banks finance Islamic radicalism. In Turkey, such suspicions played an important role in the military intervention against the coalition government led by the pro-Islamic Welfare Party in 1997. The military claimed that the Islamist group in Turkey pursued an Islamic revolution and Islamic banks were the main financiers.6 After the

6 In February 28 of 1997, the National Security Council sent a warning to the government, led by the pro-Islamic Welfare Party, claiming it was deviating from secularist principles. Following the government’s resignation the NSC issued a list of Islamic companies, among which the Islamic financial institutions took the lead, arguing that
attack on the World Trade Center in September 11, 2001, more observers started to consider the political role that Islamic financial institutions and their customers may play. As Henry and Wilson explained, in the aftermath of the attacks, US government began portraying Islamic banks as the targets of the “war on terror” and attacking them legally and financially. Lately, some influential studies have argued that the Islamic finance movement does not challenge liberalism but it creates a niche for itself within the liberal order. Similarly, studies comparing Islamic and conventional financial institutions, such as Weill (2011), suggested that Islamic financial institutions do not enjoy a captive client base simply due to their Islamic character but they rather compete with conventional banks. In the same vein recent research on Islamic business groups have highlighted the key role of economic interests, which may even supersede ideology, in shaping the political and economic agenda of these actors. However, Islamic banks and other financial institutions still retain their mystery and they are viewed with suspicion not only in the West but also in predominantly Muslim nations such as Turkey, Egypt, or Tunisia.

This paper provides a comparative analysis of Islamic and conventional banking in Turkey, with a focus on the individuals who are typically left out in the literature. Our research brings new empirical evidence through a wide range of methods to analyze the motivations and

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behavior of Islamic economic actors that determine the cash flow to Islamic banks and helps assessing the role Islamic actors can play in economic and political life.

Analyzing the workings of the bank lending channel in Turkey, we examine if there are significant differences among Islamic and conventional banks in response to an interest rate change vis-a-vis monetary transmission mechanism. This way, we investigate the behavioral patterns of Islamic financial actors, which we operationalize as the customers of Islamic banks. We test whether these actors behave purely by religious motivations or if they respond to pragmatic interests which may contradict with Islamic principles. Our findings suggest that Islamic banks’ customers are at least as sensitive to interest rate changes as the conventional banks. Coupled with the fact that Islamic banks are slower in adjusting their rates of return, we conclude that these banks are more vulnerable to interest rate changes triggered by the monetary transmission mechanism relative to conventional banks. An increase in interest rates due to tight monetary policy leads to a slower increase in profit shares distributed by Islamic banks and widens the wedge between the rates of return offered by Islamic and conventional banks. This leads to a decline in the sources of funds that are channeled to Islamic banks, consistent with rational consumer behavior. As our interviews with Islamic bank customers also demonstrate, devout individuals prefer Islamic financing if it provides competitive economic advantages. However, when other financial options become economically advantageous, many individuals choose them despite their religious concerns. This finding refutes certain general assumptions on Islamic actors which is critical in assessing the role they play in economic and political life. We suggest that despite the widely accepted beliefs in the literature, Islamic economic actors do not behave primarily by fixed ideological motivations. They may weigh their ideological preferences against their economic interests and seek to balance them. As subsequent sections
will explain, this flexibility has important implications as it suggests that these actors could adapt to liberal economic and political systems that require compromise and pragmatism.

**The Curious Case of Islamic Banks: The Islamic Bank as a “Black Box”?**

The role of Islamic banking continues to increase in the world financial markets. This development creates curiosity about these institutions, not only among the public but also academic circles from various fields including economics, Islamic law, and political science. These studies successfully described the functioning of these institutions, the economic and religious needs that they met, or the political-economic context that enabled, or sometimes challenged, their development. Nevertheless, most of these studies focused on the banks as the main units of analysis rather than investigating the preferences and behavior of the individuals who do business with these institutions. Thus, many studies portrayed Islamic banks like a “black box” with inputs and outputs without examining the decision making processes of the participating actors. The motivations and choices of the individuals who shape these institutions or the political implications of these qualities were often missing. Further, in many cases descriptions prevailed over analysis and the lack of empirical evidence prevented scholars from making convincing claims about these economic actors.

Studies on Islamic banks mostly developed in the economics literature and analyzed the economic advantages offered by these banks. They described the functioning of these newly founded institutions and considered if they contributed to the economy. These studies compared Islamic financial institutions with their conventional counterparts and questioned if

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Islamic banks offered more effective alternatives in certain circumstances, such as financial crises, in agricultural economies, in the case of small size enterprises, or in reflecting the effects of monetary economic regulations upon the economy. Others considered if Islamic banks made a contribution to the economic development by bringing the revenues of individuals, who refuse to invest their money in conventional banks or stocks, into the financial market. An important contribution of these studies was to highlight, albeit implicitly, that Islamic banks did not merely respond to religious demands but they offered some economic advantages which attracted customers. However, their attention centered on the institutions or financial sectors rather than the customers, so they did not provide much insight or evidence on actors’ preferences.

A parallel set of literature developed in the area of Islamic studies which investigated which type of contracts, offered by these institutions, performed better in serving Islamic goals (for instance murabaha versus mudharaba contracts) or to what extent these institutions contributed to Islamic economies such as collecting zakat, protecting small enterprises, or supporting production. Some of them highlighted concerns arising from the fact that

18 Zakat is an Islamic obligation for Muslims to distribute one fourth of their annual savings to the poor as charity.
Islamically more suitable contracts (such as mudharaba) were not necessarily more popular among the customers of Islamic banks who preferred more questionable but economically advantageous contracts (such as murabaha). These studies challenged the assumption that Islamic banks always served Islamic goals but their impact has been limited since they often remained normative and very rarely employed empirical analysis.

A substantive effort to better understand the motives and behavior of Islamic economic actors remained absent in the political studies of Islamism as well. Until more recently, the limited number of research on the politics of Islamic finance typically consisted of descriptive analyses which explained the formation process of Islamic financial institutions.20 This lack of interest on the part of political scientists is unfortunate because Islamic financial actors can impact economic and political life in Muslim nations due to the large sums of financial resources that they can control and channel to Islamic political parties. Thus, understanding the preferences of these actors, the extent of their commitment to religious principles and their willingness to consider non-Islamic political-economic systems is critical to predict the roles they may play in the politics of the societies in which they operate.

Finally, in the past decade, particularly after the Al-Qaida attack on the World Trade Center in 2001, studies on the politics of Islamic finance proliferated as many observers started to view Islamic financial actors as political agents.21 The US government played a particularly important role in portraying Islamic institutions as the financiers of radical Islam and therefore,

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20 For a successful example see Zubaida (1990).
21 Also see Patrick Imam and Kangni Kpodar, “Islamic Banking: How Has it Diffused”, IMF Working Paper (2010), 11-29, for the impact of the rise of oil prices, which coincided with the Al-Qaida attacks, on the diffusion of Islamic financial institutions.
targets of the “war on terror.” This reaction increased the political and academic interest on Islamic economic actors. New and successful studies developed to investigate the link between Islamic political and financial groups, how Islamic finance impacts political Islam and vice versa, and most importantly if Islamic banks finance Islamic fundamentalism. Some of these studies researched the link between the managers of Islamic banks and Islamic political parties while others measured the activities of Islamic banks in regions where Islamic parties are popular and examined the link between the development of these banks and Islamic movements. Some other studies analyzed the winners (modern Islamic brotherhoods such as Muslim Brothers, small merchants and industrialists) and losers (agricultural sector, big entrepreneurs, black market currency traders) of this rising sector, the supportive or preventive roles that governments play in the foundation of these institutions, or the economic factors (such as the discovery of oil in the region, government debt, or transition to export-led growth) that contributed to the rise of Islamic banks. While these studies made important contributions by highlighting the politics of the Islamic financial sector, many of them remained focused on the financial institutions instead of the individuals who form them. Yet, the omission of the Islamic actors as units of analyses limits our understanding of the agency that shapes these institutions.

27 Filiz Başkan, Lena Rethal.
Focusing on the Islamic identity of the actors, observers may miss the complexity of the decision making, preference ordering, and adaptive strategies involved in these financial activities. As a result we still know too little on the motivations and behavior of “homo islamicus” and if they differ from homo economicus. Nevertheless, this difference constitutes a critical issue in the studies of Islamism, as the following section illustrates.

“Rational Actors” and Religious Commitments:
Exceptionalism in the Studies of Islamic Actors

Islamic actors’ differences from their non-Islamic counterparts in economic, political, or social behavior constitutes an interest in many social science disciplines. A particular focus of these inquiries is if Islamic individuals are driven primarily by religious doctrine or if they behave according to universal motives, such as interest maximization. This question has important political and economic implications as theorists suggest that pragmatic behavior constitutes a prerequisite for liberalism.

In his seminal work, *Democracy and the Market*, Przeworski argued that democratic liberal systems do not necessarily require individuals who truly believe in liberal values, but they require rational actors who pursue their interests, can be flexible, and adapt to the circumstances. These are actors who are willing to bargain and may settle with non-ideal situations. Liberal systems are initiated by actors who seek to maximize interests and they consolidate over time when actors start to actually internalize and habituate democratic and

29 Adam Przeworski.
Thus, liberal systems can be founded even without liberal participants, as long as there are self-interested actors who are willing to reconsider their demands, order and postpone some of them, and join partnerships with people who share different beliefs. Ideologues on the other hand, do not constitute preferable participants for liberal systems as they are hard to negotiate with and stick to their ideals even at the cost of their lives.

The neo-liberal turn of Islamic groups since the 1990s in Turkey, Egypt, and elsewhere, stimulated debates on the liberalization of Islamic groups. Some scholars argued that Islamists can adapt to non-Islamic systems such as liberal democracies, if some of their economic interests were harnessed. Some of these studies compared Islamic moderation with the democratization of former communist parties in Europe and suggested that Islamists can follow the same path. Nevertheless, other scholars claimed that Islamic moderation is an oxymoron. Accordingly, Islamists’ move towards liberalism in Turkey or Egypt could only be a tactic to survive and capture power to eventually overthrow non-Islamic institutions. Underlying this thought lied the assumption that Islamists were inherently fundamentalist actors.

The presumption that Islamic actors are different from other actors as they are driven primarily by religious doctrin retains a substantial place in the literature on Islamism. Although challenged by critical studies, “Islamic exceptionalism” continues to constitute an intellectual

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32 John Waterbury, “Democracy without Democrats: Potential for Political Liberalization in the Middle East”, pg. 23; Ghassan Salame, “Introduction: Where are the Democrats?”, pg.84.


barrier in the study of Islamist actors and movements.\textsuperscript{35} Exceptionalist accounts suggest that we cannot understand Islamic actors with the general theoretical tools we have, because Islamic actors, parties, and institutions are governed by unique (Islamic) principles. One of the widely argued political implications of this view is that Islamic actors cannot adapt to non-Islamic economic or political systems such as liberalism.\textsuperscript{36} According to these perspectives, qualities such as negotiation, adaptation, interest calculation, pragmatism or rational consumer behavior are widely shared among non-Islamic or secularist groups, but they are not expected from Islamists. These accounts tend to portray Islamic actors as ideologues who cannot be as flexible and pragmatic as their non-Islamic counterparts and thus, incompatible with liberal economic or political systems. Finally, the consideration of Islamic actors as substantially different from their counterparts is not unique to secularist accounts but can also be observed among Islamic approaches. According to these accounts, an observing Muslim is primarily motivated to live an Islamic life and contribute to the founding of an Islamic society. In this vein, Islamic accounts suggest that homo Islamicus differs from homo economicus by prefering a moral economy over pragmatic benefits.\textsuperscript{37} In sum, regardless of their ideological references, dominant views on Islamic actors depict them as individuals who are primarily motivated to promote an Islamic society. Despite of critical studies, the explanatory power of Islamic identity remains amplified in the literature, in the absence of sufficient counter-evidence.


Islamic Banks and the Lending Channel

Our goal in this section is to investigate whether there are any quantifiable differences in the customer behavior of conventional versus Islamic banks. Specifically, we want to see how the balance sheet components of these two types of banks change in response to a monetary policy action represented by an interest rate change. The particular framework that we analyze is the bank lending channel.

Monetary transmission mechanism depicts the alternative ways in which changes in the monetary policy are transmitted to the rest of the economy. Since the 1980s, two broad transmission mechanisms have been discussed in the macroeconomics literature: an “interest-rate” or “money channel,” in which interest rates adjust to clear markets and influence borrowing and lending behavior; and a “credit channel,” in which the quantity as much as the price of loanable funds transmit monetary policy to the economy. Within the credit channel literature, a narrow “bank lending channel” view suggests that changes in the policy stance and the quantity of reserves directly affect the amount of lending that banks can do.

The chain of events that constitute the bank lending channel start with a change in the monetary policy stance. For the post-2005 period that we analyze in this paper, monetary policy actions can be captured by changes in interest rates which is the operational instrument of the Central Bank of Turkey for that period. Following, say, an increase in interest rates, the central bank drains reserves from the system through open market sales. Assuming that it is costly for banks to raise external funding to make up for the decline in their reserves, banks reduce their loans. The inherent assumption in the bank lending channel is that bank reserves are imperfect substitutes for external funding. This assumption is particularly valid for countries such as
Turkey where the financial system is less developed and alternative funding opportunities are limited.38

In order to investigate the existence of the bank lending channel, we focus on the balance sheet components of Islamic and conventional banks. Specifically, we decompose bank liabilities into those that are subject to reserve requirements (which are essentially demand deposits for conventional banks and current accounts for Islamic banks) and those that are exempt from reserve requirements (which are time deposits for conventional banks and participation accounts for Islamic banks). According to the bank lending channel, a tight monetary policy action that is represented by an interest rate hike leads to a decline in reservable deposits, which in turn reduces bank loans.

A finding that suggests that the customers of Islamic banks remain indifferent to the changes in interest rates (and hence no change in reservable deposits) supports the argument that Islamic actors are not motivated by economic interests and it implies that the Islamic banks are not affected by the bank lending channel. The opposite result on the other hand would refute popular assumptions, illustrating that Islamic economic actors are not essentially different from their counterparts. Hence our investigation as to whether Islamic banks are affected by the lending channel or not has one to one implications on the understanding of the economic choices of Islamic actors.

The period following a monetary policy action constitutes a unique opportunity for the purposes of our analysis which investigates the extent of religious motives in determining the behavior of Islamic bank customers. An unanticipated change in monetary policy such as an

increase in interest rates constitutes a theoretical conflict for these individuals, albeit briefly, where they have to choose between either sticking to Islamic banks or switching elsewhere. This type of a conflict is rare in practice because normally Islamic banks provide almost the same advantages that conventional banks do, as profit rates offered by Islamic banks generally match the interest rates offered by conventional banks. However, during the brief periods immediately after monetary policy actions, Islamic banks may became less advantageous than conventional banks, up until they match their profit rates with the interest rates again. Thus, these periods of adjustment allow us to observe how Islamic actors behave when faced with a dilemma between religious and pragmatic preferences.

To that end, we estimate a monthly structural (VAR) for Turkey. We conduct an impulse response analysis to measure the response of conventional and participation banks to a change in interest rates. We use the following variables in the listed Choleski order: Interest rate, US Dollar/TL exchange rate, consumer price index (CPI), conventional banks’ liquid assets, participation banks’ liquid assets, demand deposits of conventional banks, current accounts of Islamic banks (which are the analogue of demand deposits of conventional banks), time deposits of conventional banks, participation accounts of Islamic banks, loans of conventional banks, loans of Islamic banks, industrial production index. Most variables except policy rate are seasonally adjusted using the Census X-13 technique. This VAR follows the general set up established in the literature. Accordingly, monetary policy is assumed to affect macroeconomic variables immediately but it is not affected by them within the same month. There is a spillover from the exchange rate to the inflation rate contemporaneously. This assumption is consistent with the inherent structure of the Turkish economy which heavily relies

on imported intermediate goods. Going back to the Cholesky ordering, monetary policy affects bank liabilities contemporaneously which feed into bank loans and hence the industrial production.\textsuperscript{40}

All variables but interest rates are in logarithmic form as a precaution against non-stationarity.\textsuperscript{41} The data is monthly, expanding from December 2005 through March 2013. We use one lag in the VAR to conserve degrees of freedom in a relatively short sample of 86 observations. This lag specification is also supported by the Schwarz information criterion.\textsuperscript{42}

As we take a look at bank liabilities, there are two sources of bank funding in the model. The first source is demand deposits for conventional banks and current accounts for participation banks, both of which have negligible returns for the account holders and are subject to reserve requirements. That is, banks need to hold a certain fraction of these deposits as reserves at the central bank. Instead of monetary gains, depositors choose to hold these accounts for their liquidity and convenience such as the ability to make payments without carrying money. The second source of funding is time deposits for conventional banks and participation accounts for participation banks. The primary motivation for holding these accounts is their monetary returns. According to the monetary transmission mechanism, an increase in interest rates increases the opportunity cost of non-interest bearing accounts (such as demand deposits and current accounts) and leads to a decline in such accounts. Meanwhile, accounts with positive

\textsuperscript{40} The results are robust to alternative plausible Cholesky orderings such as ordering bank loans prior to bank liabilities (assuming that banks issue loans first and then obtain the funding) or placing industrial production index after CPI and prior to the balance sheet variables (assuming that changes in bank loans do not affect industrial production contemporaneously).

\textsuperscript{41} Non-stationarity is a common challenge in macroeconomic analysis. Nevertheless this is not necessarily a problem so long as the residuals in the VAR are stationary. To address non-stationarity, we take the logarithm of the nonstationary variables. Furthermore, we add one lag of each variable to capture the persistence. The residuals from the VAR analysis are found to be stationary (not shown). This finding supports the validity of our results despite non-stationary regressors.

\textsuperscript{42} Our results are robust when we incorporate two lags in the VAR. Adding an additional lag allows us to eliminate any remaining correlation in the residual terms. Nevertheless, we prefer to report the results with one lag (as suggested by SIC) which allow more precise estimation due to our limited number of observations.
returns (such as time deposits and participation accounts) increase depending on the speed of adjustment of the rate of return on such accounts.

Figure 1 provides a comparative perspective on the relative magnitudes of alternative sources of funding for conventional and participation banks. Total sources of funding for conventional banks is an order of magnitude larger than those of participation banks, reflecting the relative market shares of the two types of banks. Indeed, as of December 2005, which is the beginning of our sample, total demand deposits were about 25 times larger than those of current accounts while time deposits were about 28 times larger than participation accounts. The figure illustrates that while all four channels of funding increased over time, the gap between conventional and participation banks’ sources somewhat narrowed. By the time we reach the end of our sample in April 2013, the ratio of demand deposits over current accounts declined to 12 while the ratio of time deposits over participation accounts declined to 14. One reason for the relative increase in the market share of participation banks could be the outbreak of the recent financial crisis. The financial crisis triggered worries about the stability of the banking system, which may have led to increased demand for an alternative banking system such as Islamic banking. Indeed, it is noted that Islamic banks generally have higher leverage ratios and they have increased their liquidity ratios during the recent financial crisis.\footnote{Thorsten Beck, Asli Demirguc Kunt and Ouarda Merrouche,“Islamic vs. Conventional Banking: Business Model, Efficiency, and Stability”, Journal of Banking and Finance 37 (2013), 433-447.}

Going back to the VAR exercise, our goal in this exercise is to compare the responses of conventional and participation banks to a monetary policy shock. Three different scenarios are plausible:

1) If the customers of conventional banks are more sensitive to relative rates of return, an increase in interest rate leads to a larger decline in demand deposits relative to current accounts
2) If the customers of participation banks are more sensitive to relative rates of return, an increase in interest rate leads to a larger decline in current accounts relative to demand deposits.

3) If the customers of the two types of customers have similar sensitivities rates of return, the decline in demand deposits and current accounts should be comparable. Meanwhile, the change in time deposits and participation accounts depends on the speed of adjustment of the relative rates of return offered on these accounts in response to a change in interest rates.

Figure 2 shows the results from the impulse response analysis of the twelve-variable VAR model. The figure illustrates the responses of the variables to a one standard deviation shock to the interest rate. In response to a tight monetary policy action represented by the interest rate shock (the first panel), demand for the Turkish Lira goes up, which leads to a decline in the real exchange rate (the second panel). As the interest rate shock diminishes, so does its impact on the real exchange rate. Meanwhile, the tight monetary policy action is associated with a decline in the price level in the second quarter (the third panel), consistent with the monetary transmission mechanism where contractionary monetary policy puts downward pressure on the price level by reducing aggregate demand.

The fourth and the fifth panels show the response of liquid assets to an interest rate shock for conventional banks (c_liquid_assets) as well as participation banks (p_liquid_assets). We observe that liquid assets follow a U-shaped path following an interest rate shock, which is interpreted as evidence for the existence of the bank lending channel.\footnote{Ben S. Bernanke and Alan Blinder, “The Federal Funds Rate and The Channels of Monetary Transmission,” American Economic Review 82,(1992), 901-921.} Bank loans are contractual agreements and cannot be changed immediately in response to a monetary policy action. Indeed, when there is a tight monetary policy action that reduces the liquidity in the
banking system, the immediate response of the banking system is to increase their liquidity by selling off their liquid assets. In the long run, however, banks reduce their loan portfolios and bring back their liquid assets to their optimal level. In countries where the financial system is heavily dependent on the banking system such as Turkey, it is natural to expect the U-shape in liquid assets which suggests that the bank lending channel is effective.\textsuperscript{45}

Two panels that are critical for the purposes of this study are the sixth and the seventh panels which trace the responses of demand deposits at conventional banks and current accounts at participation banks to an interest rate shock. Generally, both funding sources exhibit a decline in response to an increase in interest rates consistent with rational depositor behavior. The increase in interest rates leads to an increase in the opportunity cost of holding these accounts, leading the investors to search for alternative instruments for their savings. The declines in the two funding sources are of comparable magnitude although depositors who hold demand deposits seem to adjust somewhat faster than current account holders. Overall, we observe that there is no significant difference in terms of the basic motivations of customers in allocating their savings to low-yield instruments at the two types of banks. Both types of customers consider the changes in relative rates of return in making their optimal allocations.

The eighth and the ninth panels compare the responsiveness of time deposits and participation accounts both of which provide higher yields. If the rates of return in these accounts competitively follow the interest rate change induced by monetary policy, then these accounts may increase following a rate hike.\textsuperscript{46} While both types of accounts exhibit an increase


in the first month, participation accounts display a significant decline around the third month suggesting that the profit shares in such accounts cannot be adjusted as fast as interest rate adjustments in time deposits. Figure 3 compares the interest rates offered on 12-month time deposits with the profit shares distributed by participation banks. The top panel reflects that even though average profit share is lower than rates offered on time deposits, the two rates of return follow the same general trend. Indeed, when we test for cointegration between these two series, we find a significant relationship (not shown). These findings are consistent with a free market economy where profit shares are highly correlated with market interest rates. Indeed, for the 2009-2011 interval, the simple correlation coefficient between the two series is 0.87. What is particularly important for our purposes is how the changes in one series is followed by the other one. For example, when there is a change in 12-month interest rates, how long does it take for the profit rates to follow? To answer that question, we construct the cross-correlations between these two series. Table 1 shows the lag and lead correlations between changes in profit shares and changes in 12-month interest rates. Accordingly, the maximum correlation between the two series takes place two months after a change in 12-month interest rates (the correlation coefficient is 0.55). This finding suggests that profit shares tend to change in the same direction as interest rates but likely with a two-month lag or longer.\footnote{Granger causality analysis (not shown) also indicate that 12-month deposit rates Granger cause profit shares (at one and two-lags) while average profit shares do not Granger cause 12-month deposit rates.} The slower adjustment of profit shares is consistent with the contractual nature of these agreements and explains the decline in participation accounts following an increase in interest rates. The decline in the relative rate of return leads to a decrease in such accounts, which is once again consistent with rational investor behavior.
Panels ten and eleven show the response of bank loans at conventional banks (c_loans) and participation banks (p_loans). Following a tight monetary policy action, both types of bank loans decrease, consistent with the bank lending channel. The decline in bank loans is only significant for conventional banks. This suggests that participation banks may also be slow in adjusting the rates on their loans relative to conventional banks. As a result, even though demand for loans at conventional banks decrease in response to higher loan rates, demand for loans at participation banks may not decline significantly if the costs of obtaining such loans does not increase right away. The last panel shows the response of industrial production index, which declines after tight monetary policy, consistent with the predictions of the monetary transmission mechanism.

The analysis in this section suggests that there is no statistical difference in the customer behavior of the two types of banks in terms of searching for the best rate of return for their savings. The observed differences between the balance sheet components of the two banks mostly reflect the speed of adjustment between the two banks which is due to the structural differences between the operations of the two banks.

Before we conclude this section, it is worth highlighting an interesting aspect of Figure 3. While the rates of return offered by conventional banks and Islamic banks follow the same general trend as shown in the upper panel, the difference between the two series widens over time except for the brief period in the last quarter of 2010. The lower panel plots the spread between the average interest rate offered on 12-month deposits at conventional banks and the average profit share at Islamic banks. The decline in deposit rates in the last quarter of 2010 coincides with the announcement by the Federal Reserve regarding the second round of

\[\text{As a robustness check, we estimated the VAR in the presence of a linear time trend. The results remain qualitatively the same.}\]
quantitative easing. It is hence plausible to expect a decrease in deposit rates during that time, following the increase in the risk appetite. Nevertheless, while deposit rates sharply bounced back in early 2011, we do not observe a similar increase in profit shares, which widens the spread between the rates of return offered by the two types of banks. There could be several potential explanations consistent with the increase in the spread. An explanation that is consistent with rational economic behavior is related to the perceived riskiness of conventional banks, which increased over the course of the financial crisis as these banks increased their exposure to foreign currency borrowing. This may have led individuals to switch to Islamic banks despite lower returns. Alternatively, it could be the case that the customers of Islamic banks are becoming more religious and hence less rational, willing to accept lower returns.

Table 1: Cross correlations between Profit Shares and 12-month Deposit Rates

2009:01-2011:10
Correlations are asymptotically consistent approximations. There are 33 observations. D_PS: Monthly change in profit share, D_12M: Monthly change in 12-month deposit rate

<table>
<thead>
<tr>
<th>D_PS,D_12M(-i)</th>
<th>D_PS,D_12M(+i)</th>
<th>i</th>
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<th>lead</th>
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Figure 1: Sources of Funding for Conventional and Participation Banks
Figure 2: Impulse-Response Analysis

Response to Cholesky One S.D. Innovations ± 2 S.E.
Figure 3: A comparison of Alternative Rates of Return

percent

22
20
18
16
14
12
10
8
6
4
2
0

I II III IV I II III IV I II III IV
2009 2010 2011
12-month deposit rate

Average profit share

percent

9
8
7
6
5
4
3
2

I II III IV I II III IV I II III IV
2009 2010 2011
12-month deposit rate-Average profit share
“Interest” Paradox Among Islamic Economic Actors

It is widely assumed that Islamic economic actors’ main goal is to avoid un-Islamic, interest-based gains and to finance an Islamic society. Nevertheless, a closer look at these actors’ investment and consumer behavior in the previous section suggested that they are not indifferent to pragmatic incentives and show sensitivity to interest rates.

When we shared our findings with Islamic bank managers they typically suggested that those account holders who are sensitive to interest rates and leave Islamic banks during rate hikes constitute the minority of their customer base who choose them not for religious reasons but merely to diversify their interests in the first place. However, devout individuals, their “true” customers, would not shift their accounts elsewhere, regardless of the changes in interest rates. These comments reflect popular assumptions which suggests that Islamic actors are categorically different from their non-Islamic counterparts and behave by pure ideological motives. We disagree with this argument because it is unlikely for the minority of Islamic bank customers to drive the overall rational behavior that we documented in the previous section. The analysis in the following section provides further evidence to defeat these popular assumptions.

While the previous section showed Islamic bank customers’ sensitivity to interest rates through macro-level data, the section below demonstrates at micro-level that this sensitivity is also observed among devout customers who prefer Islamic banks for religious reasons. In this section, we present our interview results that investigate the motivations of Islamic economic actors and analyze how they respond to dilemmas between religious conviction and pragmatism. More specifically, we examine individuals’ sensitivity towards interest


50 Ahmet Tarık Tüzün, Kuveyt Turk, Head of Treasury (Private Interview in Istanbul, 2011).
payments in their financial transactions. The interviews analyze to what extent the customers remain “loyal” to interest free economic options and if they are likely to turn to other options if their economic interests dictate such moves.

The interviews were conducted with 104 individuals. The interviewees were selected through snowball sampling, which is a preferable methodology to establish rapport between interviewee and interviewers when discussing topics as sensitive as ours. The questions, as shown in Table 2, primarily investigated why the respondents chose to work with an Islamic bank (religious vs. other reasons), if they ever felt economically disadvantaged during their experience with Islamic banks, and if they had (or have had) an additional account in a conventional bank. Other questions included if the interviewees possessed a credit card, if they made payments through installments, if they held stocks, or if they purchased government bonds.

Table 2: Interview Questions Used to Evaluate Actors’ Sensitivity Towards “Interest Aversion”

<table>
<thead>
<tr>
<th>Questions</th>
<th>Question Wording</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Why did you chose to work with an Islamic bank?</td>
</tr>
<tr>
<td>2.</td>
<td>Do you ever feel economically disadvantaged while working with an Islamic bank?</td>
</tr>
<tr>
<td>3.</td>
<td>Do you have an additional account in a conventional bank or did you have one in the past?</td>
</tr>
<tr>
<td>4.</td>
<td>Do you use a credit card?</td>
</tr>
<tr>
<td>5.</td>
<td>Do you make payments through installments?</td>
</tr>
<tr>
<td>6.</td>
<td>Do you purchase stocks?</td>
</tr>
<tr>
<td>7.</td>
<td>Do you purchase government bonds?</td>
</tr>
</tbody>
</table>

51 The interviewees were located predominantly in Istanbul.
52 In addition to the above described advantages there are also downsides of snowball sampling, such as the absence of randomness in the sampling process.
Figure 4 summarizes the interview results, which suggest that a majority (81.7%) of the customers prefer Islamic banks because of religious sensitivities, that is, to avoid “interest.” On the other hand, most interviewees (78%) do not feel economically disadvantaged when they do business with Islamic banks either. This is consistent with our findings in the earlier section where we documented that the profit rates are typically in synch with interest rates so that most of the time customers do not face a dilemma between religious and economic preferences. However, the majority (71%) of the customers who specifically mention that they choose Islamic banks for religious reasons also admitted that they already hold an account in a conventional bank, or at least they had one at some point, for practical reasons such as ATM accessibility or advantageous payment opportunities.

Figure 4. Interest Aversion Among Islamic Bank Customers

Individuals’ attitudes towards “installment payments” and “credit card” also offers interesting findings on actors’ sensitivity towards the notion of interest payments. In Turkey, many stores offer the option of “installment payments” to their customers in exchange for a higher total price. This creates a dilemma for devout consumers because most Islamic authorities describe this type of payment as another form of interest. In addition, installment
payments typically involve credit card use. However, credit cards, even when offered by Islamic banks, raise questions regarding their compatibility with Islamic principles. Islamic banks avoid interest but they charge for “delayed payment” of debt. For some scholars though, this type of a charge is not different from interest rate. Yet, 75% of our interviewees noted that they chose to make payments through installments, typically using a credit card and even when there is a higher price for the purchase. Despite their religious concerns, actors turn towards this option because of the economic disadvantages of making the entire payment up front and the absence of alternative Islamic payment options.\(^{53}\)

In sum, the interviews provide supporting evidence to our findings in the VAR exercise, suggesting that the customers of Islamic banks can be religious and pragmatical at the same time. While they seek to unite both Islamic and economic interests, they may choose one over the other when they fail to fulfill both. Islamic banks are often able to harmonize religious and pragmatic preferences and thereby decrease the pressure on individuals to choose between the two options. Yet, when such dilemmas do occur, individuals act as rational agents and make their choices by taking the opportunity costs into account. They stay loyal to Islamic banks when other alternatives are not economically superior. However, they consider shifting their investments when the other options become significantly more advantageous.

**Conclusion**

This study observed the behavior of Islamic bank customers and analyzed the impact of religious commitment on their economic decisions. Particularly, we investigated the extent of “interest aversion” among Islamic economic actors, when faced with a dilemma between

\(^{53}\) Due to the large number of “no response” answer to questions on stock and bond holdings we dropped these questions from our analysis.
religious and pragmatic preferences. To this end, we provided a comparison of Islamic and conventional banks around the workings of the bank lending channel.

Our findings suggest that there are no statistically significant differences between the sensitivities or the economic rationalities of the two banks’ customers. As our interviews also confirm, devout individuals prefer Islamic banks as long as these provide competitive gains but they may consider alternative investments or economic transactions when they offer superior advantages.

Our analysis allowed an empirical testing of the assumptions on Islamist actors based on “Islamic exceptionalism.” Our research based on the case of Turkey demonstrates firstly that Islamic economic actors do not constitute a monolithic entity. Second, just like their counterparts, many Islamic individuals weigh their ideological and pragmatic preferences before they make a choice. They try to follow Islamic principles when these overlap with their pragmatic interests but they are open to reconsider their choices when religious and economic interests diverge. Finally, this adaptive rationality has political-economic implications and suggests that Islamic actors can become part of liberal systems. We believe that this is an important finding that should be investigated further by future studies that can bring additional individual-level evidence.

Finally, there are two more important questions that deserve further discussion. First, is there a monetary threshold that determine the effectiveness of the above described economic incentives? More specifically, are actors are more likely to respond to incentives above a certain level of opportunity cost? Second, does the income level impact actors’ likelihood to respond to economic incentives? In other words, are wealthier people more likely to deviate from their commitment to interest free banking, because stakes are higher? Or does wealth, at least a certain minimum, make actors more economically satisfied and
thus, more indifferent to economic incentives? These issues remained outside of the scope of our analysis and require further research.

References


