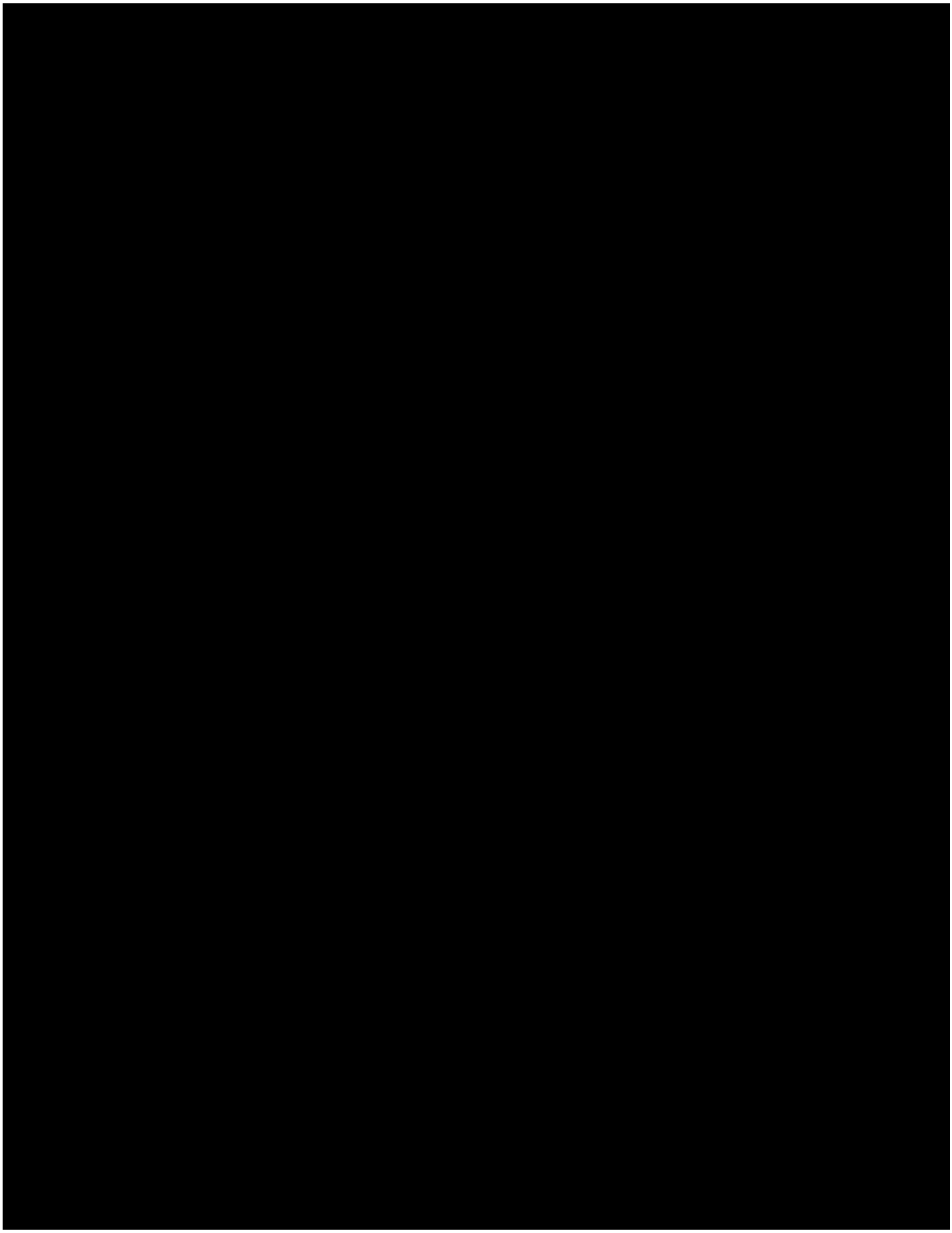

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Basel Compliance and Financial Stability: Evidence from Islamic Banks

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Abstract

The paper provides robust evidence that compliance with Basel Core Principles (BCPs) has a strong positive effect on the Z-score of conventional banks, albeit less pronounced on the Z-score of Islamic banks. Using a sample of banks operating in 19 developing countries, the results appear to be driven by capital ratios, a component of Z-score for the two types of banks. Even though smaller on Islamic banks, individual chapters of BCPs also suggest a positive effect on the stability of conventional banks. The findings support the effective role of BCP standards in improving bank stability, whose important implications led to the Islamic Financial Services Board (IFSB) publication of new recommendations in 2015 to bring BCP standards in line with the Core Principles for Islamic Finance Regulation (CPIFRs) standards. Our findings suggest that because Islamic banks are benchmarked closely to BCPs, the implementation of CPFIRs should also positively affect their stability.

JEL Classification Numbers: G18, G21, P51

Keywords: BCPs, CPIFRs, Stability, Islamic banks

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I. INTRODUCTION

In this study, we examine whether compliance with Basel Core Principles (BCPs) for effective banking supervision affects bank stability and risk taking by comparing conventional and Islamic banks. While Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) used a large and heterogeneous sample of banks around the world, this paper not only extends the analysis to cover Islamic banks, as compared to conventional banks, but also focuses on banks operating mainly in developing and emerging countries.

BCPs were introduced in 1997 by the Basel Committee on Banking and Supervision (BCBS) and several surveys have been conducted by the IMF and the World Bank to assess the quality of banking regulation and supervision worldwide. These principles were initially created as a pilot project for 12 advanced countries but rapidly became the global standard for banking regulation. One important drawback with BCPs is that they do not take into account the specificities of certain types of banks, such as Islamic banks.[2]

In 2015, the Islamic Financial Services Board (IFSB),[3] an international regulatory organization with a main objective of promoting the development and the stability of the Islamic financial industry, published a set of guidelines called Core Principles for Islamic Finance Regulation (CPIFR). These guidelines are built on BCBS standards and have been extended to deal with the specificities of Islamic banks.

Within these guidelines, some of the CPIFRs remained unchanged between CPIFRs and BCPs, some of them were amended, while other CPIFRs are completely new. Because CPIFR guidelines were published in 2015, Islamic banks were expected to implement them in January 2016 or later (IFSB, 2015). Accordingly, data on Islamic banks compliance with CPIFRs are not available at this stage. Yet, because some of the CPIFRs are similar to conventional bank BCPs, our study focuses on available BCPs and examines whether the adoption of current BCPs affects the stability of Islamic banks. This could also enable us to derive some important policy implications regarding the expected effects of CPIFRs on Islamic banks financial soundness.

To do this, we use an initial sample of 761 conventional and Islamic banks in 19 countries covering the period from 1999–2013. In contrast to Demirgüç-Kunt and Detragiache (2011), our findings suggest that BCP compliance index is positively associated with the stability of

[2] Islamic banks are by nature financial intermediaries that are compliant with the *Sharia'a* law (Gheeraert, 2014). Thus, they can be defined as institutions that allocate resources and invest them under the guidance of *Sharia'a* principles without any use of interest. Islamic banks operate in a highly regulated industry. However, due to the special characteristics of Islamic banks—i.e. the concept of profit and loss sharing at the asset side (with entrepreneur/borrowers) and the liability side (depositors/investors)—they do not only adhere to Basel Committee on Banking and Supervision (BCBS) regulatory guidelines but also to specific capital guidelines by the Islamic Financial Services Board (IFSB) as well as the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). In this paper, we do not detail the specifics of Islamic banks because they were already reviewed extensively in previous literature. However, for such a review the reader may refer to Khan (2010), Beck et al. (2013), and Abedifar et al. (2013).

[3] Established in Kuala Lumpur, Malaysia in 2002, the Islamic Financial Services Board (IFSB) comprises 188 members, including 61 regulatory authorities, 8 intergovernmental organizations, and 119 market players. IFSB is considered to be the complement of the Basel Committee on Banking Supervision.

conventional banks in at least five out of seven individual chapters at the 1 percent level. The effect remains positive but less pronounced for Islamic banks, where three out of seven chapters are significantly positive at the 5 percent level or more. A deeper examination of the components of the dependent variable (i.e. bank Z-score) shows that results are mainly driven by bank capital ratios. The findings indicate that adherence to international regulatory standards improves the stability of the two bank types through incentives to hold higher capital ratios. The results hold when considering bank financial characteristics, macroeconomics, and institutional environment. The findings also remain unaffected across different subsamples and after applying alternative risk and stability measures, an instrumental variable approach (IV), a Heckman estimation technique to address endogeneity and selection bias, and the Propensity Score Matching (PSM) technique to reduce any bias in sample size.

This study contributes to the literature on both conventional and Islamic banks in at least three important ways: First, we highlight a strong positive impact of the BCP index on the stability of conventional banks, while the impact is positive albeit less effective on the stability of Islamic banks. This could provide regulatory organizations such as the BIS and the IFSB with initial empirical evidence to support the effective role of BCP standards in improving bank stability. Since BCPs are also effective in improving the stability of Islamic banks, the findings suggest that CPFIRs should also positively affect the stability of Islamic banks, as they are benchmarked closely to BCPs. Yet, an open question remains on whether BCP standards should be amended to cover for some specificities of Islamic banks. An argument in favor may find support in a more stable financial system found in countries where the two bank types operate.

Second, we show that regulatory compliance enhances bank stability through two main channels: (i) prudent investment decisions by avoiding risky activities, reflected in lower return on assets and lower volatility of returns; (ii) strong willingness of banks in developing countries to be recognized and more integrated in the global financial system, reflected in their strong solvency ratios.

Finally, we add to the comparative literature on conventional and Islamic banks (Abedifar et al. 2013; Beck et al. 2013; Mollah and Zaman, 2015; Mollah et al. 2016; Bitar et al. 2017b) by exploring the regulatory determinants of bank stability and finding compelling evidence of relative similarity between the two bank types.

The rest of the paper is structured as follows: Section II briefly reviews the literature. Section III describes the sample, the empirical approach, and variable definitions. Section IV presents the main results, while Section V reports the robustness checks. The last section concludes.

II. LITERATURE REVIEW

Literature examining the effect of banking regulation on the risk and the stability of the financial system does not provide a specific set of indicators that can be used to proxy for banking regulation. While some studies refer to accounting and market ratios such as regulatory capital, liquidity, and leverage measures, other studies are based on questionnaires and surveys

performed by governments and international regulatory organizations. These studies often report inconclusive and contradictory results.

Barth et al. (2004, 2006, and 2008) are among the first to examine the effect of banking regulation and supervision on bank performance and stability using international data. Their findings suggest that strong monitoring of markets and the private sector is an important factor in promoting performance and stability of the financial sector. Focusing on corporate governance, Leaven and Levine (2009) use different proxies of banking regulation and supervision (capital requirements, capital stringency, activity restrictions, and deposit insurance) with bank ownership structure. They conclude that regulation increases bank risk-taking when a bank has an ultimate owner, while the opposite occurs when a bank is widely held. Klomp and de Haan (2012) ask whether banking regulation has an homogeneous effect on bank risk. Using a sample of 200 banks from 21 OECD countries, their findings show that banking regulation is more effective in improving safety for riskier banks thus suggesting that the effect of regulation is not uniform and depends on bank risk profile. Klomp and de Haan (2014) further investigate the association between banking regulation and risk by taking into consideration the level of development of a country's institutional environment. Using a sample of 400 banks from 70 developing and emerging countries, their findings indicate that the positive effect of banking regulation and supervision on bank risk is supported in countries with a better institutional environment.

In recent literature, Doumpos et al. (2015) use a large sample of 1700 commercial banks operating in 90 countries over the period 2000–11 to study the effect of three indexes of regulation (central bank independence, central bank involvement in prudential regulation, and supervisory unification) on bank stability. Depending on bank size and the country's official supervisory power, their results yield a positive and significant association with bank Z-score, especially in periods of crisis. Finally, using a sample from 19 EU countries covering the 1999–2011 period, Carretta et al. (2015) focus on the culture of banking supervision (proxied by the Hofstede's cultural dimensions) to assess the stability of banks. Their findings suggest that a greater supervisory culture based on collectivism and avoidance of uncertainty is positively linked to bank Z-score. Accordingly, they highlighted the importance of cultural dimensions in the success of banking regulation by the Banking Union at the European Central Bank (ECB).

However, one important shortcoming in these studies is that they evaluate the effectiveness of banking regulation and supervision based on what is mentioned on the books rather than on actual implementation (Demirgüç-Kunt and Detragiache, 2011; Ayadi et al. 2016). In addition, actual reporting on the soundness of banking-sector laws and regulation often lacks true assessment, especially in low-income countries, which could exacerbate the variation between what books report and what is being practiced (Demirgüç-Kunt and Detragiache, 2011).

Another stream of literature adheres to the Basel Core Principles (BCP) index for effective banking supervision as an alternative measure to questionnaires and surveys reported above. Developed by the World Bank and the IMF under the Basel Core Financial Sector Assessment

Program (FSAP), the BCP index is considered a unique source of information that represents the quality of supervision and regulation in countries around the globe. Demirgüç-Kunt and Detragiache (2011) argue that assessments by the FSAP are more effective for two reasons: First, the BCP index reflects the actual implementation of different factors that represent banking regulation and supervision. Second, assessments are based on an explicit and standardized methodology and are conducted by experienced international assessors with broad country experience.[4]

Several studies have employed the BCP index to proxy for compliance with banking regulation and supervision and to examine its effect on the performance and stability of the banking system. Sundararajan et al. (2001) examine the association between BCP compliance and bank soundness, using a sample of banks in 25 countries. Their findings highlight the importance of other bank-level and macroeconomic factors and conclude that the implementation of international standards is not sufficient in itself to ensure financial soundness. Das et al. (2005) find that countries with higher compliance with BCP resist more macroeconomic pressures. Podpiera (2006) also investigates the effect of BCPs on bank performance using a sample of banks from advanced, emerging, and developing countries. He finds that banks in countries with higher compliance with BCP have lower non-performing loans and interest margins. In a related context, Cihak and Tieman (2008) show that BCP compliance is positively and strongly associated with a country's sound governance and higher GDP per capita, while the effect is less significant when replacing the BCP index with on-the-book regulatory measures.

More recently, Demirgüç-Kunt and Detragiache (2011) investigate the association between compliance with Basel Core Principles and banks' financial stability. Employing an overall index of 25 Basel principles and a sample of international banks, the authors find no evidence of a significant relationship between compliance with Basel rules and a bank's Z-score. Finally, Ayadi et al. (2016) extend the work of Demirgüç-Kunt and Detragiache (2011) by focusing on bank efficiency. Their results also show no association between BCPs and efficiency. However, when examining the effect of each chapter, they only find a negative impact between Chapter 4 (methods of ongoing supervision) and bank efficiency. Table 1 resumes the available literature on BCP studies.

Because BCP compliance chapters are designed to promote the stability and the financial soundness of conventional banks, the likelihood of affecting the stability of their Islamic counterparts should be irrelevant or, at best, circumstantially slim. This might be expected if Islamic banks have different balance sheets and different financial products compared to conventional banks. The literature, however, offers different opinions on whether Islamic banks share the same financial characteristics as conventional banks. Scholars offer different opinions mainly because the current business model of Islamic banks presents substantial discrepancies between *Sharia'a* ideals and bank practices (Khan, 2010). One would expect that under *Sharia'a*

[4] However, BCP methodology cannot be considered as an exact science, as assessments might be affected by several factors depending on the assessors' subjectivity and experience as well as on the existing regulatory framework (Demirgüç-Kunt and Detragiache, 2011; Ayadi et al., 2016).

law Profit Loss Sharing (PLS) instruments such as *Musharaka* and *Moudharaba*—as a core of Islamic banking and finance—dominate Islamic banks' practices. Yet, unsurprisingly, non-PLS mark-up mode of finance such as *Murabaha* and *Ijara* predominate. Mark-up financing techniques are considered less *Sharia'a* compliant and a benchmark for conventional banks' activities, suggesting the existence of similarities between the two bank types (Abedifar et al. 2013; Beck et al. 2013; Mollah and Zaman, 2015).

Recently, the IFSB published new guidelines on CPIFRs (IFSB, 2015) based on the Core Principles for Effective Banking Supervision (BCPs) created by the Basel Committee on Banking and Supervision (BCBS). According to the IFSB, the proposed guidelines aim to "build on the standards adopted by relevant conventional standards […] and to adapt or supplement them only to the extent necessary to deal with the specificities of Islamic finance" (p.2, IFSB, 2015). A detailed description of CPIFRs is presented in Appendix A.1.

CPIFR guidelines are different than BCP guidelines in at least three main areas: First, IAHs are treated more like investors than depositors, which impacts capital adequacy ratios, the results of the relevant risk weighting methodology, and the role of regulatory authorities on capital treatment, policies regarding the smoothing mechanism, and the bank exposure to displaced commercial risk.

Second, the Rate of Return (ROR) risk differs in that it depends on market conditions and on competition with conventional banks. The ROR might lead to the use of bank reserves or to DCR if an Islamic bank absorbs any losses (partially or entirely), if reducing its share of profits yields a shortcoming in the returns payable to IAHs, or through a donation from the shareholders share of income.

Finally, regulatory authorities ensure that Islamic banks possess an effective *Sharia'a* governance system to examine the compliance of Islamic banks activities, investments, and products with Islamic law. These differences might influence the way that the BCP index affects the stability of Islamic banks compared to conventional counterparts. While CPIFRs take into consideration these differences, an empirical investigation that examines their effect on the stability of Islamic banks is not possible now because the implementation of CPIFRs started only recently in 2016. We thus use the BCP index and argue that this index should have a similar effect to the CPIFR index for two reasons: First, according to IFSB (2015), seven principles in the CPIFR guidelines are kept the same, seventeen principles are amended, and only one principle is replaced. The main difference resides in four new CPIFR principles related to the specificities of Islamic banks that have not been considered in the BCP guidelines. Second, the literature often argues that the two bank types are not very different in terms of business orientation (Beck et al. 2013), stability and interest (financing) margins (Abedifar et al. 2013), profitability (Mollah and Zaman, 2015), and liquidity (Bitar et al. 2017b).

III. DATA AND METHODOLOGY

A. Sample Construction

In order to investigate the effect of Basel Core Principles on the stability and risk of conventional and Islamic banks, we compiled data from three main sources: (i) the IMF and the World Bank Basel Core Financial Sector assessment Program (FSAP) database, which contains detailed information on country evaluation and compliance with the Basel Core Principles for effective bank supervision (BCP) during 1999–2012; (2) the World Bank's World Development Indicators (WDI) and World Governance Indicators (WGI) for macroeconomic and governance variables; and (3) the Bankscope Database provided by Bureau van Dijk and Fitch Ratings for accounting data.

In the selection of bank-level data, we recover financial information from 1999 to 2013 in 33 countries where both bank types exist. A bank is excluded from the sample if it does not have at least three continuous observations. Our sample includes 651 (110) conventional (Islamic) banks. In contrast to Ayadi et al. (2016), our study focuses on a broad sample of listed and unlisted banks—rather than only publicly listed banks—to avoid missing observations, given that most of Islamic banks are unlisted.

We then match bank-level information with country-level information for control of variation in a country's macroeconomic and regulatory conditions. After checking the FSAP database, we find 28 countries that reported information on their compliance with BCP and where the two bank types exist. We also exclude countries such as Algeria, Bosnia, Brunei, Cayman Islands, Iraq, Iran, Qatar, Senegal, Sudan, and Yemen because of missing information on some of the BCP chapters. Our final sample is reduced to banks operating in 19 countries[5] and characterised by the homogeneity that results from including banks in countries that have similar financial characteristics and macroeconomic conditions. Some of these countries include only a few Islamic banks, while other have a large number of conventional banks.

Because BCP chapters are collected in three different waves (1999, 2005 and 2012) and because our sample is constrained by the number of observations, we decided to match the data for different chapters as follows: (i) the 1999 wave data is used for the period 1999–2004, (ii) the 2005 wave data is used for the period 2005–11, and (iii) the 2012 wave data is used for the period 2012–13. However, some countries have witnessed two assessment waves. For instance, Saudi Arabia reports its BCP compliance in 2004 and 2011. Thus, the 2009 wave data is used for the period 2004–10 while the 2011 wave data is used for the period 2011–13.

[5] The sample is dominated by developing countries. Two developed countries are also included: The UK and Singapore. We included these countries because they have available data on BCP chapters and markets where conventional and Islamic banks operate.

B. Empirical Approach and Definition of Variables

The main dependent variable we use to evaluate bank stability is Z-score, and the main independent variable is the country's BCP compliance index. We follow Mollah and Zaman (2015) and Bitar et al. (2016) and use random-effect, GLS regressions to examine the effect of BCP compliance on bank financial stability. We prefer the GLS technique, instead of other estimation techniques, for two reasons: First, regression models such as OLS ignore the panel structure of our data. Second, our Islamic bank dummy is time-invariant and cannot be estimated using a fixed-effect methodology. Accordingly, we use the following baseline regression equations:

$$Stability_{ijt} = \alpha + \beta_1 \times BCP_{jt} + \beta_2 \times Bank\_control_{ijt-1} + \beta_3 \times Country\_control_{jt} + \sum_{t=1}^{T} \mu_t \times Time_t + \varepsilon_{ij} \quad (1)$$

$$Stability_{ijt} = \alpha + \beta_1 \times Islamic_i + \beta_2 \times BCP_{jt} + \beta_3 \times BCP_{jt} \times Islamic_i + \beta_4 \times Bank\_control_{ijt-1} + \beta_5 \times Country\_control_{jt} + \sum_{t=1}^{T} \mu_t \times Time_t + \varepsilon_{ij} \quad (2)$$

where $Stability_{ijt}$ represents the natural logarithm of Z-score of bank *i* in country *j* at time *t*. BCP_{jt} is the Basel Core Principles compliance index for country *j* in time *t* (if a country has reported its BCP compliance more than once). $Bank\_control_{ijt-1}$ is a vector of bank-level control variables. $Country\_control_{jt}$ is a vector of country-level control variables. $Time_t$ represents year fixed effects while ε_{ij} is a random disturbance, assumed to be normally distributed with zero mean and constant variance, $\varepsilon_{it} \sim iid\ N(0, \sigma^2)$. In Eq. 2, $Islamic_i$ is a dummy taking the value of one for Islamic banks and zero for conventional banks. Finally, an interaction term is introduced between Islamic and BCP compliance to investigate whether a country's compliance with BCP affects the stability of Islamic banks differently from how it affects their conventional counterparts.

The Z-score is defined as ([return on average assets + equity/assets]/[standard deviation of the return on average assets] over (*t, t–3*). Demirgüç-Kunt and Detragiache (2011) interpret the Z-score as the number of standard deviations by which bank earnings would have to decrease to deteriorate the entire bank equity base. In the regression analysis, we focus on using the natural logarithm of Z-score (LnZ-score) to minimize the effects of higher values that could result from outliers. In our robustness tests, we follow Bitar et al. (2017b) and use loan-loss reserves to gross loans (LLRGLP), loan-loss provision to total loans (LLPTLP), nonperforming loans to gross loans (NPLGLP), and volatility of net-interest margin (SD NIM) to examine the impact of the BCP compliance index on the stability and risk of the two bank types.

Our main independent variable is the BCP compliance index derived from the IMF and the World Bank Basel Core Financial Sector Assessment Program (FSAP) database. This study

extends the work of Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) by comparing the effect of the BCP compliance index with the stability of Islamic and conventional banks mainly located in developing countries. The literature does not provide a standard measure of banking regulation and supervision. As explained and shown in the literature review, empirical studies often use surveys on banking regulation (Barth et al., 2004, 2006, 2008) to account for the institutional environment and to examine the effect of a wide range of regulatory and supervisory variables on bank financial soundness. The literature also uses accounting and market measures to examine the effect of holding higher capital, liquidity, and leverage ratios on bank financial soundness (Demirgüç-Kunt et al., 2013; Anginer and Demirgüç-Kunt, 2014; Vazquez and Federico, 2015; Bitar et al., 2016; Bitar et al., 2017a). Despite the plethora of research on banking regulation and supervision, BCP compliance index is rarely used in conventional banking literature and, to the best of our knowledge, has never been used in an Islamic banking context. The BCP index is based on 25 principles that are considered the best measures to capture compliance with banking regulation and supervision. These elements are classified into seven chapters as follows: (Ch. 1) Preconditions for Effective Banking Supervision; (Ch. 2) Licensing and Structure; (Ch. 3) Prudential Regulation and Requirements; (Ch. 4) Methods of Ongoing Supervision; (Ch. 5) Information Requirements; (Ch. 6) Formal Powers of Supervisors; (Ch. 7) Cross-Border Banking. The definition of the different elements used to construct these chapters are reported in Appendix A.2.

We follow Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) and use aggregate and disaggregate approaches to distinguish between different chapters and to examine their effect on bank stability. Each of the 25 elements that constitute the BCP compliance index is evaluated based on the following four-point scale: (i) noncompliant; (ii) materially noncompliant; (iii) largely compliant; and (iv) compliant. We grade each point by assigning a numerical value (from one for noncompliant to four for compliant). The overall index of BCP compliance is then calculated as the average sum of the seven chapters.

We further allow for factors that may influence the relationship between BCP and bank stability by including two vectors: $Bank\_control_{ijt-1}$ is the vector of bank portfolio characteristics. It measures for bank size proxied by the natural logarithm of total assets (*lnta*)—which may arguably increase (Stiroh, 2004; Houston et al., 2010) or decrease bank stability and risk (Demirgüç-Kunt and Huizinga, 2010; Schaeck and Cihák, 2012; Beck et al., 2013)—and by growth rate of total assets (*gtap*) to allow for the expansion of a bank's balance sheet during the current year (compared to the previous year). Abedifar et al. (2013) employ this ratio as a proxy for bank growth and development strategies. As they expand and develop, banks might be further exposed to information asymmetry, since a considerable increase in bank activities may result in weaker screening standards and lower monitoring of investments. We also include the cost to income ratio (cirp) to allow for any cross-bank differences in terms of inefficiency, where higher values reflect managerial inadequacies and thus a tendency for banks to take more risk (Chortareas et al., 2012; Abedifar et al. 2013; Beck et al., 2013). In addition, we use noninterest income to total operating income to allow for bank business model and activity diversification. Finally, we use the ratio of liquid assets to deposit and short-term funding to assess the

sensitivity to bank runs, where banks with more liquid assets face lower bankruptcy costs, less information asymmetry, and are more capable of raising equity (Horváth et al., 2014; Belkhir et al., 2016).

$Country\_control_{jt}$ is the vector of three macroeconomic and institutional variables commonly used in the stability literature (Houston et al., 2010; Demirgüç-Kunt and Detragiache, 2011; Schaeck and Cihák, 2012; Abedifar et al. 2013; Lee and Hsieh, 2013). It includes the GDP growth rate (gdpg) to allow for any potential cyclical behavior of regulation under Basel requirements, the inflation rate (inf) to capture a country's general financial conditions, the oil rent to GDP (oil), the gas rent to GDP (gas), and mineral rent to GDP (mineral)[6] as complementary measures to allow for differences between economies, especially because many countries in our sample are rich in natural resources.

Finally, we employ the world governance index as an additional measure to allow for a country's political and institutional quality. This index is computed as the average of six governance dimensions (i.e., voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption).

In regression equations, all variables are winsorized at the 1 percent and 99 percent levels to mitigate the effect of outliers. We follow Beck et al. (2013) and Anginer and Demirgüç-Kunt (2014) and cluster at the bank level, instead of the country level, for two reasons: First, our sample includes some countries with a much larger number of observations than others. Second, as we have 19 countries, clustering at a country level might create biased results.

C. Descriptive Statistics

Table 2 reports descriptive statistics for the samples of conventional and Islamic banks. Panels A and B present the mean, the median, and the standard deviation for the bank-level dependent and independent variables, while Panel C presents the summary statistics for our key independent variable (i.e. BCP compliance index), the seven chapters, and the rest of the macroeconomic and institutional-environment control variables. Table 2, Panel D presents the BCP compliance mean for each country and the relative year of assessment.

In Panels A and B, we perform Wilks' lambda test (λ),[7] Wilcoxon-Mann-Whitney test (Wilc), and the univariate analysis of variance test (F) for equality of means for each financial ratio. Results of the statistics tests are presented in the three last columns of Table 2 and suggest that conventional banks are significantly different from Islamic banks when using all the financial ratios (except the ratio of loan loss reserves to gross loans). The three tests indicate that the standard deviation of net-interest margins have the highest likelihood of separation between the

[6] Oil, gas, and minerals rents mark the difference between the value of oil, gas, and minerals production in terms of world prices and total production cost.

[7] Wilks' lambda is the ratio of within-groups sum of squares to the total sum of squares. It takes values between zero and one with lower values indicating that ratios are more capable of splitting between conventional and Islamic banks.

two bank types, while the ratio of loan loss reserves to gross loans has the lowest. Finally, we note that in our main dependent variable (i.e. Z-score) there is a clear separation between the two bank types, as reported by the three tests as well.

In Panel C, the mean of the BCP compliance index (BCP index) is 84.95 percent, a much higher percentage than in Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) studies. This percentage is likely being driven by the inclusion of a large set of banks from emerging and developing countries. Ayadi et al. (2016) argue that the BCP index is much lower in the United States and in other developed countries compared to developing countries. For instance, if we examine the upper 10 percent of BCP index distribution in Panel D, we find that the BCP index is the highest in Saudi Arabia (97.66 percent), followed by the UK (94.22 percent), then Malaysia (91.73 percent), and United Arab Emirates (90.71 percent). Three out of these four countries are developing ones. These findings suggest that banks in developing countries are moving toward global financial convergence through their compliance with BCPs and international regulation. Finally, Panel C presents the number of conventional and Islamic banks in each country. For conventional banks, the sample is dominated by banks from the United Kingdom and Bahrain for Islamic banks. We also notice that for the studied period, the number of available observations is rather weak and the percentage of reported observations (N obs. percent) is higher for conventional banks (58.4 percent) than for Islamic ones (52.1 percent).

IV. EMPIRICAL RESULTS

In Table 3, Panel A, we present regression results examining the effect of the BCP index on bank stability using Eqs. 1 and 2. Models 1–4 report the results for conventional banks, Models 5–8 report the results for Islamic banks, and Models 9–12 report the results for the full sample. We also present the results for Z-score component for each sample after allowing for bank and country-level variables. These components include the ratio of return on average assets (ROAA), the standard deviation of ROAA (SDROAA), and the ratio of equity to assets (TETA). The Wald Chi2 tests are highly significant for all models, and the R-squares are relatively high, suggesting that the models are representative and fit with the GLS random effect regression justified in the previous section. We find that the BCP compliance index has a positive and significant effect on the stability of conventional banks (at the 1 percent level), Islamic banks (at the 5 percent level), and the full sample (at the 1 percent level). Economically, the estimated coefficients on BCP compliance in Models 1, 5, and 9 vary between 0.015 and 0.017, indicating that a one-unit increase in the BCP compliance index is associated with an increase of nearly two percentage points in the Z-score. In contrast to Demirgüç-Kunt and Detragiache (2011), our results indicate that the Z-score is higher for conventional and Islamic banks in countries with higher BCP compliance, suggesting sounder banking institutional settings. Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) use a large and heterogeneous set of banks in countries with different regulatory regimes and different macroeconomic and institutional conditions, which could explain their limited findings. This study mainly focuses on countries where both Islamic and conventional banks operate with similar financial, economic, and institutional conditions.

In addition, the sample mainly includes banks from developing countries, whereas Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) samples are dominated by banks from developed countries.

To better understand what drives the positive association between BCP compliance and bank stability, we now focus on the components of Z-score to investigate whether such a significant impact is attributable to the effect of the BCP index on return on average assets, the volatility of returns, or bank capitalization. Table 3, Models 2 and 3 report a negative impact of BCP compliance on conventional banks' profits (at the 1 percent level) and volatility of returns (at the 10 percent level), while, in Model 4, the association with capitalization is significantly positive (at the 1 percent level). For Islamic banks, the results appear insignificant except in Model 8, where the association between BCP compliance and bank capital is positive (at the 10 percent level). The results for the full sample report bear similar findings, although the coefficient estimate for the ratio of return on average assets becomes insignificant. In addition, Models 9–12 show that Islamic banks are not significantly different from conventional banks in terms of profits, volatility of returns, and capitalization. Finally, while our findings suggest that higher BCP compliance has a significantly positive effect on the stability of conventional banks ($[\alpha_{BCP}]$ is positive and significant), we do not find any significant impact of BCP compliance on the stability of Islamic banks in Panel B ($[\alpha_{BCP}+\alpha_{inter}]$ is not statistically significant), expect in Model 12, where the findings suggest that BCP compliance has a significantly positive effect on the capital ratios of Islamic banks at the 5 percent level.

Together, the findings suggest that BCP compliance is the main factor driving the Z-score of the two bank types through incentives to hold higher capital ratios in a strong regulatory environment that discourages excessive risk taking, which is inversely correlated with higher profits and volatile earnings. Findings concerning the capital ratio are consistent with newly emerged literature shedding light on the importance of institutional and regulatory factors as important determinants of bank capital decisions. For instance, Jayaraman and Thakor (2013) find that creditor protection can play a primordial role in incentivizing conventional banks to increase their capital ratios.

With regards to bank-level control variables, we find that bank size and Z-score are negatively correlated, due to the negative effect of bank size on capital for both bank types (Abedifar et al., 2013; Beck et al., 2013). We also find that bank growth of total assets is negatively associated with Z-score, reflecting weak screening standards and less monitoring incentives, especially because regulatory authorities are more flexible with large banks in term of capital requirements, which also explains the negative effect of growth of total assets ratio on bank capital. The cost to income ratio is negatively associated with bank Z-score, suggesting that managerial inadequacies reduce bank profitability and increase risk (Chortareas et al., 2012; Abedifar et al. 2013; Beck et al., 2013). With respect to Islamic banks, the effect of bank-level control variables is less pronounced, likely because of the contradictory signs between different components of Z-score. For instance, the liquidity ratios have a negative effect on bank profits and a positive effect on bank capital, which explains the insignificant effect on Z-score. For country-level control

variables, we find that banks are more stable in countries with better GDP growth, higher mineral rents, lower gas rents, and lower inflation. The positive effect of GDP and mineral rents is mainly driven by ROAA, while the negative effect of gas rents and inflation is driven by the SDROAA.

V. ROBUSTNESS CHECKS

A. BCP Index Components

To shed further light on the main results in Table 3, we now examine the impact of the seven chapters of BCP compliance on bank stability: Chapter 1. Preconditions for Effective Banking Supervision, Chapter 2. Licensing and Structure, Chapter 3. Prudential Regulations and Requirements, Chapter 4. Methods of Ongoing Supervision, Chapter 5. Information Requirements, Chapter 6. Formal Powers of Supervisors, and Chapter 7. Cross-Border Banking. While Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016) examine the effect of the seven chapters in a single regression model, in this study, we separately introduce each chapter and examine its effect on bank stability, taking into consideration the same bank and country-level control variables mentioned above. By doing so, we mitigate the effect of multicollinearity between different chapters and bank stability. For comparison purposes, we also report the effect of all the chapters on bank Z-score.

Results are presented in Table 4, Panel A and show important findings. First, the chapters reported in Models 2–7 have a significantly positive effect on conventional bank stability (at the 10 percent level or better). Chapter 2 on licencing and structure and Chapter 7 on cross-border banking present the most pronounced effect on conventional banks' Z-score, while preconditions for effective banking supervision (Chapter 1) has the least pronounced effect. For Islamic banks, we also find important evidence of positive and significant association chapters reported in Models 10, 12, and 13 and Z-score. Chapter 2 on licensing and structure is, again, the chapter that has the most pronounced effect on Islamic banks' Z-score, while Chapter 5 on information requirement is the chapter with the less pronounced effect. Second, if we compare the results after including all chapters in Models 8, 16, and 24, the findings become less pronounced for both conventional and Islamic banks—similarly to those reported by Demirgüç-Kunt and Detragiache (2011) and Ayadi et al. (2016), thus confirming our expectations regarding the problem of multicollinearity between different chapters, as well as the insignificant effect on bank stability. Finally, the results for the full sample resemble those reported separately for each sample. Specifically, our findings in Models 17–23 continue to suggest that higher BCP compliance has a significantly positive effect on the stability of conventional banks in Models 18–23 ($\alpha_{BCP\ chapters}$ are positive and significant) and on the stability of Islamic banks in Panel B, Models 18, 20, and 21 ([$\alpha_{BCP\ chapters}+\alpha_{inter}$] are positive and significant).

B. Subsamples

We examine the robustness of previous results by exploring whether the relationship between BCP compliance and bank stability changes if we alter the sample composition to exclude regions (such as the Gulf Cooperation Council [GCC], the South East Asia [SEA], and the Middle East and North Africa [MENA]), the United Kingdom, listed and unlisted banks, and periods of different economic cycles (such as the periods before (1999–2006), during (2007–09), and after (2010–13 the financial crisis), as well as groups of countries and banks, depending on their stability, institutional environment, and efficiency scores.

Results are presented in Table 5, Panel A.1 for subsampling by regions. We find that the association between BCP compliance and conventional banks Z-score is significantly positive. This association is robust to the exclusion of banks in the GCC region, the SEA region, and the MENA region. Economically, the estimated coefficients on BCP compliance in Models 1, 4, and 7 vary between 0.008 and 0.015, indicating that a one-unit increase in the BCP compliance index is associated with an increase in the Z-score that varies between three quarters of a percentage point (when excluding conventional banks in the SEA region) and one-and-a-half percentage points (when excluding conventional banks in the MENA region). These findings suggest that the effect of BCP compliance on conventional banks stability is strongest in the SEA region, followed by conventional banks in the GCC countries, and by conventional banks in the MENA region, these latter reporting the weakest effect. For Islamic banks, the association between BCP compliance and conventional banks Z-score is marginally positive when excluding banks in the MENA region. However, the results become insignificant when excluding Islamic banks in the GCC and the SEA regions, suggesting that the positive association is mainly driven by those two regions. Finally, we do not find any significant impact of BCP compliance on the stability of Islamic banks in Panel A.2 ([$\alpha_{BCP}+\alpha_{inter}$] is not statistically significant).

Now, because conventional banks in the United Kingdom represent 26 percent (167 banks) of the sample, we decided to exclude them to avoid sample bias. Table 5, Panel B.1 shows that results remain similar for conventional banks and become significant for Islamic ones. For the latter, results suggest, once again, that the positive effect is driven mainly by Islamic banks operating in the SEA and the GCC regions. Aside from regional and country effects, the association between BCP compliance and bank stability can also be reinforced when banks are publicly listed due to market discipline. Listing a bank on the market implies more stringent rules and stricter capital regulation and supervision and thus, less risky behavior. Panel B.1 also presents the results for subsamples of listed and unlisted banks. We find clear evidence that the effect of BCP compliance on a bank's Z-score is stronger when banks are publicly listed, especially Islamic ones. In contrast to unlisted Islamic banks, listed ones seek international recognition through their compliance with BCP index and by holding higher capital ratios. Therefore, listed Islamic banks are prone to market discipline and regulatory pressure compared to unlisted ones, which could explain the strong positive association between BCP compliance and Z-score. Confirming the results in Panel B.1, Panel B.2 suggests that the effect of BCP compliance on the stability of Islamic banks is significantly positive at a 5 percent level when

excluding unlisted Islamic banks and at a 10 percent level when excluding Islamic banks from the UK.

Table 5, Panel C.1 reports the results for subsampling by periods of economic fluctuation. The findings provide clear evidence that the association between BCP compliance and conventional banks stability is stronger for the period that proceeded the financial crisis. In other words, the estimated coefficient on BCP compliance is more sensitive (less pronounced) to the exclusion of banks in the period before the financial crisis than during the period that followed the crisis, with the effect being less sensitive when excluding banks during the financial crisis. For Islamic banks, we report a similar pattern during the financial crisis, but the association between BCP compliance and Z-score tends to be more sensitive to excluding Islamic banks in the period that followed the financial crisis. Overall, although the findings continue to report a positive effect of BCP compliance on the stability of conventional and Islamic banks, it appears that BCP compliance is irrelevant and does not increase bank stability in periods of economic distress. One reason to explain these findings is that our sample mainly covers banks in developing countries. These countries are less affected by financial crises than developed economies. Another reason is that some countries and regions in our sample are rich in natural resources and, thus, less exposed to economic turmoil compared to other countries (Bitar et al. 2016). Finally, the results for the full sample do not report any significant impact of BCP compliance on the stability of Islamic banks in Panel C.2 ($[\alpha_{BCP}+\alpha_{inter}]$ is not statistically significant).

We further check the robustness of our findings by studying whether the association between BCP compliance and bank Z-score remains in countries with unstable political systems and weak institutional environments.[8] In addition, we ponder whether the positive effect of BCP compliance on bank stability persists for highly efficient banks.[9] Table 5, Panel D.1 indicates that BCP compliance has a negative impact on the stability of conventional and Islamic banks in countries with weak protection of depositors and an insignificant effect in countries with less stable political institutions, while the effect becomes once again positive and significant for highly efficient banks. Panel D.2 shows that the effect of the BCP compliance index is also negative on the stability of Islamic banks in countries with weak protection of depositors. Overall, these results demonstrate that compliance with BCP is stronger for efficient banks in countries with a better institutional environment and soundly based political systems.

[8] We proxy for the stability of a country's political system by using an index of durability of political institutions from the Political Regime Characteristics and Transitions of Polity IV database. We also proxy for strong institutional environments by using an index of creditor rights from Djankov et al. (2007). Based on the median value, we drop banks in countries with a durability index higher than the median. Likewise, we drop banks in countries with a creditor rights index higher than the median.

[9] We proxy for bank efficiency by using bank efficiency scores estimated through data envelopment analysis (DEA). Based on the median value, we drop banks with efficiency scores lower than the median.

C. Quantile Regressions

We perform quantile regressions to investigate whether the effect of the BCP compliance index on bank Z-score varies in a significant way with different stability levels. One important feature about quantile regressions[10] is that they allow for heterogeneous solutions to BCP index by conditioning on bank Z-score. If the BCP index has a positive and more significant effect on highly capitalized banks and if this positive effect dominates the effect of the BCP index on banks with higher ROAA and SDROAA, we then expect a more pronounced effect of the BCP index on highly stable banks.

Table 6 reports the results for the lower (Q25), the median (Q50), and the upper quantile (Q75) of the Z-score distribution. Results in Panel A show that the estimated coefficients on the BCP compliance index are positive at all quantiles for the sample of conventional banks in Models 1–3 and the full sample in Models 7–9 but not for the sample of Islamic banks. Moreover, while the coefficients on Z-score increase across quantiles, the Wald tests fail to report any significant difference between the lower quantile and the upper quantile for the effect of the BCP index on the stability of either bank type, as well as for the full sample. As for Islamic banks in the full sample, Panel B suggests a marginally positive effect of the BCP index on stability at the lower quantile.

D. Alternative Risk Measures

Our previous findings consistently show a positive and a pronounced effect between BCP compliance and Z-score for conventional banks as well as between BCP compliance and Z-score for Islamic banks albeit a less pronounced effect. We now focus on whether our findings persist when we reestimate our regressions using alternative proxies for bank stability. First, we use three different measures of bank credit risk, including the ratio of loan loss reserves to gross loans (LLRGLP), the ratio of loan loss provision to total loans (LLPTLP), and the ratio of nonperforming loans to gross loans (NPLGLP). The three ratios measure loan quality with higher values indicating poor supervision and higher credit default risk (Beck et al. 2013; Abedifar et al. 2013; Bitar et al. 2016). Second, we use the standard deviation of net interest margins (SDNIM) with higher values indicating more volatile earning margins.

The results, presented in Table 7, Panel A, show clear evidence of a negative and significant association between the BCP compliance index and different proxies of credit risk, as well as between the BCP compliance index and the SDNIM for the sample of conventional banks in Models 1–4 and the full sample in Models 9–12, while results for Islamic banks are only significant for the SDNIM in Model 8. For instance, estimated coefficients on the BCP index in Models 1–4 vary between 0.012 and 0.059, indicating that a one-unit increase in the BCP compliance index is associated with a decrease in credit risk between a one-unit decrease when

[10] Quantile regression results are equally robust to outliers and distributions with heavy tails. The quantile regression also avoids the restrictive assumption that error terms are identically distributed at all points of the conditional distribution.

using LLPTLP and nearly a 6 percent decrease when using NPLGLP. These results suggest that banks in countries with higher BCP compliance have lower credit risk and are thus more stable.

E. Alternative Estimation Techniques

To examine the robustness of our main results that the BCP compliance index is positively associated with the Z-score of conventional and Islamic banks, we ran a battery of alternative estimation techniques. The results of these estimations are discussed in the following section and confirm our key findings.

F. Other Estimation Techniques

In this subsection, we examine the robustness of results using three alternative econometrics specifications and standard errors. Table 8, Panel A reports the results from regressing the BCP index on bank Z-score. First, we use truncated regressions to address any bias related to the upper and lower distribution of observations for the dependent variable. We also focus on standard errors and use bootstrapped standard errors from 100 random resamples of different bank types employed in the sample for the second estimation while correcting for heteroscedasticity by means of a White procedure for the third estimation. Importantly, the estimated coefficients of the BCP index are significantly positive on Z-score in all models, except for Model 4 on Islamic banks when applying truncated regressions. The findings in Panel B further suggest that BCP compliance has a significantly positive effect on the capital ratios of Islamic banks at the 1 percent level in Models 8 and 9.

G. Propensity Score Matching

We employ a Propensity Score Matching (PSM) technique proposed by Rosenbaum and Raubin (1983) to verify the robustness of results. PSM consists in matching bank observations based on the probability of increasing the country's BCP compliance index. The comparison between banks in countries with higher BCP compliance and banks in countries with lower BCP compliance is then studied on the matched sample.

To implement PSM, we create a BCP compliance dummy variable that takes on a value of one, if a country's BCP compliance index has a value greater than or equal to the median, and zero otherwise. We then estimate a logit model where we regress the BCP compliance dummy on all control variables in the baseline model and the year fixed effects. We use the estimated scores to match each observation between countries with higher and lower BCP compliance. Additionally, we employ three different matching methods: K-nearest neighbors with nearest neighbor n=10, n=15, and n=20, the Gaussian Kernel matching, and the radius matching. In matched samples presented in Table 8, Panel B, we continue to find evidence that matched conventional banks in countries with higher BCP compliance have higher Z-scores compared to matched conventional banks in countries with lower BCP compliance. We obtain very similar results for banks in the full sample, but the effect is less pronounced for the sample of Islamic banks. For each method, we report T statistics for the differences between the treated countries with high BCP compliance

and countries with low BCP compliance in the control group. For BCP compliance, Z-score differences between the treated and control groups vary between 0.123 and 0.288 percent for conventional banks, between 0.123 and 0.276 percent for Islamic banks, and between 0.273 and 0.465 percent for the full sample. These differences are statistically significant at the 1 percent level in almost all models, except for the differences in the sample of Islamic banks, where significant results are only found when using the radius matching method.

H. Addressing Endogeneity and Selection Bias

We now use an Instrumental Variable approach (IV) to mitigate concerns of endogeneity. We first regress the BCP compliance index on instruments and regressors, as reported in baseline models (Table 2). Then, the predicted values of BCP compliance replace the index in baseline models. Current literature on Islamic and conventional banks is largely silent about endogeneity and the lack of specific instruments that can be used to examine the association between BCP compliance and bank Z-score. In this study, we use two instruments: (i) the rule of law obtained from the Heritage Foundation's Economic Freedom index and defined as the capacity of a country's government and legal system to recognize and ensure the protection of property and fight corruption, and (ii) business regulation obtained from the Fraser Institute's Economic Freedom of the World (EFW) index and defined as the extent to which regulations and bureaucracy procedures restrain entry into business and increase the cost of production.

We follow Barth et al. (2009) and conduct an F-test of excluded exogenous variables in first-stage regressions. The null hypothesis of the test is that our instrument does not explain cross-sectional differences in capital regulatory guidelines and measures. We reject the null hypothesis at the 1 percent level in all models. The results of first-stage regressions are reported in Table 9, Models 1, 6) and 11 and mainly show that a bank's Z-score is higher in countries with a better institutional environment in terms of rule of law and business regulation. The results of second-stage regressions are reported in Table 9, Models 2 and 3 for conventional banks, Models 7 and 8 for Islamic banks, and Models 12 and 13 for the full sample. We use two estimation techniques, a two-stage least squares regression (2SLS) (Ashraf et al., 2016) and a generalized method of moments (GMM) (Bitar et al. 2017b). The results show clear evidence of a positive and significant association (at the 1 percent level) between the BCP compliance index and the Z-score but only for the sample of conventional banks. As for the Islamic banks sample, the results need to be treated with caution, as both the Sargan and the Hansen J tests are significant. For the full sample, the results in Panels A and B suggest that higher BCP compliance has a positive and significant effect on the stability of conventional banks (α_{BCP} is positive and significant) and the stability of Islamic banks as well ([$\alpha_{BCP}+\alpha_{inter}$] is positive and significant).

We also use a Heckman (1979) selection approach to allow for a potential self-selection bias. The main objective of this technique is to correct based on whether countries are highly compliant with Basel Core Principles compared to countries that are less compliant. As a first step, we estimate a probit model that regresses a dummy variable—which takes on a value of one if a country's BCP compliance index has a value greater than or equal to the median, and zero

otherwise on the two instruments used before (cf. rule of law and business regulation) in addition to bank and country-level control variables and the year-fixed effect from the baseline model. In the second stage regression, we consider the Z-score as the different dependent variable, the BCP compliance index as the independent variable completed with the same control variables, and a self-selection parameter (measured as the inverse Mills ratio) estimated from the first-stage regression. The findings of the second stage regression (presented in Table 9, Panels A and B, Models 5, 10, and 15) continue to suggest that both conventional and Islamic banks are more stable in countries with a higher BCP compliance index.

VI. CONCLUDING REMARKS

While previous studies that use the BCPs index report no evidence of a significant association with bank stability and efficiency, this study suggests a positive effect of BCP compliance on the stability of banks in 19 developing countries. The findings are robust when including individual chapters of BCPs albeit more pronounced for conventional banks than for Islamic ones. A deeper investigation into the components of the dependent variable Z-score shows that the results are mainly driven by capital ratios of the two bank types. If anything, our findings have important implications from the regulatory point of view. Since BCPs are also effective in improving the stability of Islamic banks, this suggests that CPFIRs can also positively affect their stability as they are benchmarked closely to BCPs. The findings stand up to a battery of robustness checks allowing for omitted variables, endogeneity concerns, selection bias, and alternative estimation techniques. By conducting this first empirical assessment, we show that, despite the success of BCPs in increasing the stability of conventional banks, they are less effective in increasing the stability of Islamic banks, which requires further investigation.

It is worth noting that the overall significance and interpretation of our results depend largely on the sample size, the choice of countries, and the validity of the accounting measures used to proxy for bank stability. While increasing the sample size is beyond the reach of our study and depends on future surveys by the IMF and the World Bank, we attempt to overcome potential limitations related to measurement errors by using a large variety of proxies and econometric techniques. A next step in our analysis would be to explore the effect of CPIFRs on the stability of Islamic banks and compare it to the effect of BCPs. In addition, it would be important to identify which BCP and CPIFR chapters—especially those that take into consideration the specificities of Islamic banks—are responsible for any significant effect on bank stability. Unfortunately, data showing a comparative assessment of the two guidelines are not currently available but will hopefully be integrated in future research on this topic. Similarly, one could also attempt to investigate whether BCP and CPIFR guidelines have the same effect on Islamic bank efficiency by employing scores derived from nonparametric approaches or by using marked-based data on stock returns and Tobin's Q, for instance. While the IFSB has asked banks to start reporting their data on CPIFRs as of January 2016, the data are probably going to be available in 2017, which corresponds to a period beyond the one we presently examine.

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Table 1
Overview of Basel Core Principles studies in conventional banking

Authors	Year	Institution type and countries in sample	Sample size and year	Dependent variable	BCPs effect
Podpiera	2006	65 countries (13 advanced, 19 emerging, and 33 developing countries)	1998–2002	Non-performing loans	(-)
			1998–2001	Net interest margin	(-)
Sundararajan et al.	2001	35 countries	1999–2000	Spread risk	insignificant
				Non-performing loans	insignificant
Das et al.	2005	68 countries	1998–2003	Measures of financial stress and quality of financial policies (e.g. BCPs)	(-) with macroeconomic pressures
Cihak and Tieman	2008	n.a.	n.a.	BCPs	(-) Non-performing loans
					(+) GDP per capita
Demirgüç-Kunt and Detragiache	2011	86 countries	1999–2006	Z-score	insignificant
Ayadi et al.	2016	75 countries	1999–2014	DEA Efficiency scores	insignificant

Table 2
Descriptive statistics

	Conventional banks (CBs)				Islamic banks (CBs)				Test statistics		
Variables	N	Mean	Median	SD	N	Mean	Median	SD	Wilks-λ	Wilc	F
Panel A. Dependent variables											
Z-score	5031	3.61	3.6	5.63	637	3.19	3.22	1.13	0.9844	8.21***	79.29***
LLRGLP	4918	6.10	3.60	24.46	650	6.33	3.19	7.55	0.9999	0.68	0.71
LLPTLP	5027	1.28	0.71	7.06	672	1.77	0.75	2.96	0.9931	-2.35**	39.36***
NPLGLP	3907	8.69	4.70	35.75	457	7.53	3.70	9.75	0.9986	3.74***	6.00***
SDNIM	4449	0.60	0.35	24.27	651	1.36	0.57	2.39	0.9574	-10.98***	227.01***
Panel B. Bank level control variables											
lnta	5705	14.19	14.06	19.89	859	13.82	14.02	1.62	0.9962	4.01***	25.35***
gtap	5273	15.97	11.53	164.94	754	25.27	18.27	38.17	0.9894	-7.82***	64.51***
cirp	5505	58.2	52.44	232.61	817	71.64	59.78	72.37	0.9872	-1.67***	81.81***
niitip	5582	0.4	0.32	287.5	848	0.39	0.3	0.97	0.9998	2.81***	0.01
ladstfp	5419	45.64	33.71	314.97	786	58.22	29.42	92.49	0.9936	2.79***	40.07***
Panel C. Country level control variables											
BCP index	285	84.95	83.33	12.14							
Chapter 1	285	84.15	87.5	14.55							
Chapter 2	285	74.27	77.5	18.42							
Chapter 3	285	80.09	85	15.71							
Chapter 4	285	87.89	100	16.30							
Chapter 5	285	75.64	75	19.61							
Chapter 6	285	81.22	83	16.66							
Chapter 7	285	81.94	83	16.70							
wgi	285	-0.42	-0.63	0.65							
gdpg	285	4.03	4.3	2.96							
inf	285	6.33	4.5	7.79							
oil	285	5.11	1.06	9.74							
gaz	285	2.2	0.78	2.91							
mineral	285	0.35	0	0.81							

Panel D. BCP assessment across countries and years

Country	N CBs.	N obs. (%)	N IBs.	N obs. (%)	Mean	Year BCP assessment	Country	N CBs.	N obs. (%)	N IBs.	N obs. (%)	Mean	Year BCP assessment
Albania	12	54.4	1	33.3	70.83	2005	Pakistan	28	30	8	30	77.80	2004
Bahrain	13	62.6	20	56	81.19	2005	Saudi Arabia	8	100	4	66.7	97.66	2004, 2011
Bangladesh	32	88.1	7	94.3	49.76	2002, 2010	Singapore	22	36.4	1	46.7	84.64	2002, 2013
Egypt	31	71.4	3	73.3	86.43	2002	South Africa	26	38	1	66.7	60.77	1999, 2010
Indonesia	81	65.1	10	37.3	70.16	2000, 2010	Syria	11	40	2	40	89.64	2008
Jordan	11	86.7	3	73.3	77.50	2003	Tunisia	16	69.6	2	60	53.69	2001, 2012
Kenya	39	62	2	30	69.07	2003, 2010	Turkey	41	47.6	4	43.3	71.72	1999, 2011
Kuwait	6	83.3	7	51.4	73.81	2003	UAE	19	78.2	9	53.3	90.71	2001
Lebanon	53	52.3	4	30	89.82	2001	UK	167	52	4	51.7	94.22	2002, 2011
Malaysia	35	73.5	18	49.2	91.73	2012							

Table 3
BCP compliance and bank stability: Islamic vs. conventional banks

Panel A. The impact of BCP compliance on bank stability

	Conventional banks				Islamic banks				Full sample			
Variable	Z-score	Components of Z-score			Z-score	Components of Z-score			Z-score	Components of Z-score		
		SDROAA	ROAA	TETA		SDROAA	ROAA	TETA		SDROAA	ROAA	TETA
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
BCP (α_{BCP})	0.015***	-0.005*	-0.015***	0.085***	0.017**	-0.018	0.001	0.23*	0.017***	-0.01***	-0.005	0.097***
	(0.002)	(0.003)	(0.004)	(0.030)	(0.009)	(0.014)	(0.032)	(0.122)	(0.002)	(0.003)	(0.005)	(0.031)
lnta	-0.042**	-0.068***	-0.038	-2.998***	0.133	-0.473***	-0.259	-7.585***	-0.035*	-0.067**	-0.094**	-3.437***
	(0.019)	(0.023)	(0.034)	(0.283)	(0.094)	(0.168)	(0.350)	(1.580)	(0.019)	(0.029)	(0.046)	(0.307)
gtap	-0.002***	0.000	-0.000	-0.014**	0.001	-0.005	0.024***	-0.001	-0.002***	-0.001	0.003	-0.011*
	(0.001)	(0.001)	(0.001)	(0.006)	(0.001)	(0.005)	(0.006)	(0.020)	(0.001)	(0.001)	(0.002)	(0.006)
cirp	-0.007***	0.01***	-0.012***	0.001	-0.003***	0.005	-0.015**	-0.012	-0.006***	0.01***	-0.014***	0.001
	(0.001)	(0.002)	(0.003)	(0.012)	(0.001)	(0.005)	(0.006)	(0.016)	(0.001)	(0.002)	(0.003)	(0.011)
niitip	-0.120	0.186	0.0334	-1.253*	-0.159	0.905	-0.551	-0.930	-0.134	0.285*	-0.130	-1.376**
	(0.106)	(0.133)	(0.244)	(0.643)	(0.220)	(0.679)	(1.123)	(2.578)	(0.099)	(0.152)	(0.255)	(0.612)
ladstfp	0.001	-0.001	0.001	0.047***	-0.000	0.005	-0.009**	0.034***	0.000	0.002	-0.003	0.046***
	(0.001)	(0.001)	(0.001)	(0.013)	(0.001)	(0.004)	(0.004)	(0.012)	(0.001)	(0.002)	(0.002)	(0.009)
wgi	0.258***	-0.043	0.243***	3.015***	0.082	0.093	0.664	2.559	0.248***	-0.074	0.332***	2.955***
	(0.051)	(0.061)	(0.092)	(0.531)	(0.156)	(0.270)	(0.454)	(2.607)	(0.048)	(0.071)	(0.094)	(0.561)
gdpg	0.04***	-0.031***	0.086***	-0.01	0.02	0.04	-0.076	-0.042	0.038***	-0.03***	0.07***	-0.015
	(0.009)	(0.008)	(0.017)	(0.051)	(0.026)	(0.056)	(0.101)	(0.176)	(0.008)	(0.010)	(0.021)	(0.049)
inf	-0.026***	0.033***	-0.026**	-0.036	0.019	-0.103***	0.118**	-0.119	-0.015***	0.006	0.01	-0.034
	(0.004)	(0.008)	(0.012)	(0.026)	(0.012)	(0.028)	(0.047)	(0.094)	(0.004)	(0.011)	(0.016)	(0.025)
oil	-0.002	0.008*	0.02***	0.12***	-0.013**	0.048***	0.011	0.391***	-0.005	0.02***	0.007	0.155***
	(0.005)	(0.004)	(0.007)	(0.034)	(0.005)	(0.013)	(0.016)	(0.078)	(0.004)	(0.007)	(0.008)	(0.032)
gaz	-0.029*	0.044***	-0.041*	-0.042	0.019	0.033	0.259**	0.194	-0.021	0.038**	0.021	0.016
	(0.017)	(0.017)	(0.022)	(0.098)	(0.025)	(0.049)	(0.103)	(0.288)	(0.014)	(0.017)	(0.032)	(0.099)
mineral	0.106***	-0.099***	0.054*	0.217*	0.028	-0.029	0.374*	-0.258	0.079***	-0.07***	0.02	0.126
	(0.022)	(0.020)	(0.030)	(0.119)	(0.047)	(0.085)	(0.222)	(0.363)	(0.021)	(0.023)	(0.037)	(0.121)
Islamic									0.204	-0.181	0.0414	-3.293
									(0.640)	(0.894)	(2.435)	(6.646)
BCP × Islamic (α_{inter})									-0.006	0.011	-0.005	0.071
									(0.008)	(0.011)	(0.029)	(0.090)
Constant	3.733***	1.244***	3.024***	50.67***	0.390	8.108***	4.918	106.3***	3.466***	1.51***	3.383***	55.98***
	(0.373)	(0.420)	(0.587)	(4.940)	(1.587)	(2.366)	(7.289)	(24.63)	(0.358)	(0.488)	(0.675)	(5.355)
Obs.	2559	2641	2709	2713	280	284	289	289	2886	2925	2998	3002
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1398	0.187	0.2254	0.2872	0.3683	0.4187	0.471	0.4642	0.1432	0.1783	0.2149	0.303
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel B. Impact of BCP compliance ($\alpha_{BCP} + \alpha_{inter}$) on Islamic banks' stability (Model 9) and its components (Models 10 to 12) compared to conventional banks (α_{BCP})												
									0.11	0.001	-0.01	0.168**
									(0.007)	(0.011)	(0.029)	(0.084)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 4
BCP compliance and bank stability: Individual chapters

Panel A. The impact of BCP individual chapters on bank stability

	Conventional banks								Islamic banks							
Variable	Z-score								Z-score							
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
chapter 1	0.003							-0.01*	0.011							0.027
	(0.003)							(0.006)	(0.008)							(0.019)
chapter 2		0.014***						0.017**		0.025***						0.039*
		(0.002)						(0.008)		(0.007)						(0.023)
chapter 3			0.009***					-0.002			0.01					-0.009
			(0.002)					(0.006)			(0.006)					(0.019)
chapter 4				0.01***				-0.005				0.019***				0.025
				(0.002)				(0.006)				(0.007)				(0.028)
chapter 5					0.008***			0.006					0.013**			-0.042**
					(0.002)			(0.005)					(0.006)			(0.021)
chapter 6						0.003*		0.005*						0.001		-0.005
						(0.001)		(0.003)						(0.005)		(0.011)
chapter 7							0.011***	-0.000							0.007	-0.002
							(0.002)	(0.005)							(0.006)	(0.016)
lnta	-0.011	-0.023	-0.029	-0.024	-0.02	-0.013	-0.031	-0.041**	0.163**	0.149*	0.171**	0.15	0.162**	0.159*	0.151*	0.125
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.081)	(0.080)	(0.085)	(0.092)	(0.081)	(0.084)	(0.085)	(0.096)
gtap	-0.003***	-0.003***	-0.003***	-0.002***	-0.003***	-0.003***	-0.003***	-0.002***	-0.000	-0.000	-0.000	0.001	-0.001	-0.001	-0.000	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
cirp	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.007***	-0.003***	-0.003***	-0.003***	-0.003**	-0.003***	-0.003***	-0.003***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
niitip	-0.029	-0.05	-0.03	-0.129	-0.046	-0.035	-0.028	-0.095	-0.220	-0.307	-0.172	-0.334	-0.287	-0.326	-0.243	-0.181
	(0.101)	(0.103)	(0.102)	(0.107)	(0.102)	(0.100)	(0.102)	(0.104)	(0.233)	(0.232)	(0.215)	(0.245)	(0.224)	(0.247)	(0.239)	(0.233)
ladstfp	0.001	0.001	0.001	0.001*	0.001	0.001**	0.001	0.001	-0.000	-0.000	-0.000	-0.001	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
wgi	0.255***	0.269***	0.256***	0.193***	0.231***	0.255***	0.262***	0.291***	0.154	0.175	0.140	-0.0331	0.0472	0.199	0.150	0.331
	(0.050)	(0.051)	(0.052)	(0.0514)	(0.050)	(0.050)	(0.049)	(0.064)	(0.126)	(0.126)	(0.134)	(0.160)	(0.147)	(0.124)	(0.132)	(0.314)
gdpg	0.037***	0.04***	0.043***	0.038***	0.038***	0.036***	0.039***	0.036***	0.034	0.034	0.03	0.023	0.033	0.032	0.028	0.036
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.024)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.024)	(0.025)
inf	-0.026***	-0.022***	-0.028***	-0.022***	-0.024***	-0.025***	-0.022***	-0.026***	0.021**	0.019*	0.025**	0.017*	0.021**	0.021**	0.023**	0.012
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.010)	(0.010)	(0.011)	(0.010)	(0.010)	(0.010)	(0.010)	(0.012)
oil	-0.011***	-0.009***	-0.006	-0.012***	-0.01***	-0.012***	-0.011***	0.001	-0.019***	-0.014***	-0.02***	-0.02***	-0.017***	-0.02***	-0.017***	-0.017*
	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)	(0.003)	(0.003)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.009)
gaz	-0.028*	-0.007	-0.018	-0.024	-0.028*	-0.028*	-0.019	-0.016	0.022	0.055**	0.016	0.019	0.009	0.02	0.028	0.097**
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.019)	(0.025)	(0.028)	(0.025)	(0.027)	(0.026)	(0.025)	(0.025)	(0.046)
mineral	0.083***	0.089***	0.114***	0.093***	0.074***	0.075***	0.095***	0.109***	-0.012	0.011	0.002	0.046	-0.015	-0.004	0.007	0.039
	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.024)	(0.049)	(0.046)	(0.053)	(0.047)	(0.043)	(0.047)	(0.051)	(0.049)
Constant	4.260***	3.496***	4.010***	3.846***	3.915***	4.313***	3.936***	3.997***	0.585	-0.293	0.633	0.211	0.442	1.520	1.121	-0.430
	(0.350)	(0.362)	(0.332)	(0.353)	(0.320)	(0.315)	(0.333)	(0.429)	(1.538)	(1.369)	(1.484)	(1.517)	(1.419)	(1.384)	(1.400)	(1.583)
Obs.	2,896	2,975	2,848	2,733	2,975	2,975	2,873	2,606	342	350	329	301	350	350	342	280
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1163	0.1397	0.1414	0.1285	0.1371	0.1202	0.1412	0.1460	0.3374	0.3441	0.3384	0.3488	0.3265	0.2976	0.3271	0.3937
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 4
BCP compliance and bank stability: Individual chapters

Panel A. The impact of BCP individual chapters on bank stability							
	Full sample						
Variable	Z-score						
Model #	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Islamic	-0.721	-0.621	-0.104	-0.258	-0.344	-0.095	0.258
	(0.649)	(0.519)	(0.413)	(0.491)	(0.458)	(0.373)	(0.497)
chapter 1 (α_{cp1})	0.004						
	(0.003)						
Islamic × chapter 1 (α_{inter})	0.006						
	(0.008)						
chapter 2		0.015***					
		(0.002)					
Islamic × chapter 2		0.005					
		(0.007)					
chapter 3			0.01***				
			(0.002)				
Islamic × chapter 3			-0.003				
			(0.005)				
chapter 4				0.012***			
				(0.002)			
Islamic × chapter 4				0.000			
				(0.006)			
chapter 5					0.009***		
					(0.002)		
Islamic × chapter 5					0.001		
					(0.005)		
chapter 6						0.003**	
						(0.001)	
Islamic × chapter 6						-0.002	
						(0.005)	
chapter 7							0.012***
							(0.002)
Islamic × chapter 7							-0.007
							(0.006)
lnta	-0.004	-0.016	-0.021	-0.019	-0.013	-0.005	-0.024
	(0.019)	(0.018)	(0.019)	(0.019)	(0.018)	(0.019)	(0.019)
gtap	-0.002***	-0.002***	-0.002***	-0.002**	-0.002***	-0.003***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cirp	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
niitip	-0.069	-0.101	-0.066	-0.181*	-0.094	-0.086	-0.072
	(0.095)	(0.0962)	(0.095)	(0.102)	(0.095)	(0.094)	(0.095)
ladstfp	0.000	0.000	0.000	0.000	0.000	0.001	0.000
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
wgi	0.242***	0.261***	0.242***	0.17***	0.209***	0.248***	0.25***
	(0.047)	(0.047)	(0.048)	(0.049)	(0.048)	(0.047)	(0.047)
gdpg	0.039***	0.042***	0.044***	0.038***	0.04***	0.0375***	0.039***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
inf	-0.017***	-0.015***	-0.018***	-0.014***	-0.015***	-0.016***	-0.014***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
oil	-0.012***	-0.009***	-0.008**	-0.013***	-0.011***	-0.013***	-0.012***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)
gaz	-0.021	0.002	-0.013	-0.02	-0.025*	-0.022	-0.013
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.013)	(0.013)
mineral	0.055**	0.07***	0.088***	0.077***	0.054**	0.055**	0.071***
	(0.022)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Constant	4.014***	3.218***	3.794***	3.659***	3.694***	4.155***	3.695***
	(0.349)	(0.357)	(0.327)	(0.347)	(0.315)	(0.310)	(0.329)
Obs.	3238	3325	3177	3034	3325	3225	3215
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1227	0.149	0.1439	0.1331	0.1435	0.1216	0.1472
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel B. Impact of BCP chapters ($\alpha_{\text{BCP chapters}} + \alpha_{inter}$) on Islamic banks' stability (Models 17 to 23) compared to conventional banks ($\alpha_{\text{BCP chapters}}$)							
	0.01						
	(0.007)						
		0.021***					
		(0.006)					
			0.007				
			(0.005)				
				0.012**			
				(0.006)			
					0.01**		
					(0.005)		
						0.001	
						(0.004)	
							0.005
							(0.006)

(Continued)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 5
BCP compliance and bank stability: alternative samples

Panel A.1: Alternative samples: breakdown by regions									
	Excluding GCC			Excluding SEA			Excluding MENA		
	CBs	IBs	Full	CBs	IBs	Full	CBs	IBs	Full
Variable	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BCP (α_{BCP})	0.014***	0.009	0.014***	0.008*	0.001	0.009**	0.014***	0.016*	0.016***
	(0.003)	(0.010)	(0.003)	(0.004)	(0.010)	(0.004)	(0.003)	(0.009)	(0.003)
lnta	-0.048**	0.091	-0.043**	-0.043*	0.245***	-0.038*	-0.052***	0.146	-0.049**
	(0.020)	(0.121)	(0.019)	(0.022)	(0.089)	(0.022)	(0.020)	(0.112)	(0.020)
gtap	-0.002**	0.001	-0.002**	-0.002	-0.000	-0.002	-0.002***	0.001	-0.002***
	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
cirp	-0.007***	-0.003***	-0.006***	-0.008***	-0.002	-0.006***	-0.007***	-0.003***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
niitip	-0.0467	0.123	-0.052	-0.093	-0.076	-0.097	-0.09	-0.099	-0.125
	(0.104)	(0.436)	(0.098)	(0.155)	(0.227)	(0.142)	(0.114)	(0.228)	(0.109)
ladstfp	0.001	0.000	0.001	0.001*	0.000	0.000	0.0012*	-0.000	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.008)	(0.001)	(0.001)
wgi	0.329***	0.127	0.318***	0.075	-0.025	0.067	0.286***	0.151	0.275***
	(0.069)	(0.328)	(0.066)	(0.060)	(0.179)	(0.057)	(0.053)	(0.164)	(0.049)
gdpg	0.026***	0.005	0.025***	0.035***	0.005	0.033***	0.046***	0.005	0.045***
	(0.009)	(0.023)	(0.009)	(0.009)	(0.026)	(0.009)	(0.011)	(0.027)	(0.010)
inf	-0.029***	-0.018	-0.029***	-0.025***	0.025**	-0.015***	-0.029***	0.028**	-0.017***
	(0.005)	(0.034)	(0.005)	(0.005)	(0.012)	(0.005)	(0.004)	(0.012)	(0.005)
oil	0.042*	0.01	0.04*	-0.000	-0.016***	-0.002	-0.001	-0.013**	-0.004
	(0.022)	(0.075)	(0.020)	(0.005)	(0.006)	(0.004)	(0.005)	(0.006)	(0.004)
gaz	-0.06**	0.079	-0.05*	-0.013	0.019	-0.007	-0.039**	0.01	-0.035**
	(0.028)	(0.069)	(0.026)	(0.019)	(0.023)	(0.016)	(0.018)	(0.025)	(0.015)
mineral	0.089***	0.028	0.077***	0.108***	0.051	0.083***	0.111***	0.165	0.093***
	(0.023)	(0.059)	(0.022)	(0.024)	(0.053)	(0.024)	(0.036)	(0.132)	(0.034)
Islamic			0.450			-0.253			0.318
			(0.686)			(0.983)			(0.709)
BCP × Islamic			-0.008			-0.001			-0.007
(α_{inter})			(0.008)			(0.012)			(0.009)
Constant	3.936***	1.701	3.853***	4.272***	0.117	4.008***	3.924***	0.482	3.692***
	(0.381)	(2.010)	(0.376)	(0.473)	(1.665)	(0.461)	(0.384)	(1.910)	(0.378)
Obs.	2369	172	2541	1756	178	1934	2190	246	2436
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1575	0.2635	0.1618	0.1064	0.4582	0.1138	0;1633	0.4152	0.1628
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel A.2 Impact of BCP compliance ($\alpha_{BCP} + \alpha_{inter}$) on Islamic banks' stability compared to conventional banks (α_{BCP}) using different sub-regions									
			0.005			0.008			0.009
			(0.008)			(0.011)			(0.008)
Panel B.2 Excluding UK, unlisted, listed banks									
	Excluding UK			Excluding unlisted banks			Excluding listed banks		
	CBs	IBs	Full	CBs	IBs	Full	CBs	IBs	Full
Variable	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BCP (α_{BCP})	0.015***	0.019**	0.017***	0.02***	0.03**	0.021***	0.017***	0.01	0.018***
	(0.003)	(0.009)	(0.003)	(0.004)	(0.015)	(0.004)	(0.005)	(0.014)	(0.005)
lnta	-0.004	0.147	-0.004	-0.001	0.185	0.01	-0.042	0.126	-0.041
	(0.025)	(0.098)	(0.024)	(0.032)	(0.156)	(0.033)	(0.025)	(0.141)	(0.025)
gtap	-0.002***	0.001	-0.002**	-0.003*	-0.000	-0.002	-0.003***	-0.000	-0.002***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.003)	(0.001)	(0.001)	(0.002)	(0.001)
cirp	-0.006***	-0.003	-0.006***	-0.007***	-0.006	-0.007***	-0.006***	-0.003	-0.006***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.004)	(0.001)	(0.001)	(0.003)	(0.001)
niitip	-0.07	-0.187	-0.125	-0.263	-0.086	-0.239*	-0.059	-0.771***	-0.119
	(0.110)	(0.218)	(0.106)	(0.168)	(0.343)	(0.139)	(0.158)	(0.209)	(0.149)
ladstfp	0.001	-0.001	-0.001	0.001	0.001	0.001	0.001	-0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
wgi	0.201***	-0.018	0.188***	0.049	-0.045	0.07	0.374***	-0.308	0.318***
	(0.062)	(0.187)	(0.058)	(0.075)	(0.236)	(0.071)	(0.108)	(0.314)	(0.102)
gdpg	0.026***	0.015	0.031***	0.056***	0.015	0.061***	0.019	0.014	0.017
	(0.010)	(0.027)	(0.009)	(0.011)	(0.044)	(0.010)	(0.013)	(0.038)	(0.012)
inf	-0.024***	0.018	-0.015***	-0.028***	0.028	-0.018***	-0.021***	0.022	-0.01
	(0.004)	(0.012)	(0.004)	(0.005)	(0.019)	(0.006)	(0.008)	(0.0206)	(0.009)
oil	-0.003	-0.013**	-0.006	0.001	-0.015**	-0.004	-0.094**	0.04	-0.066**
	(0.005)	(0.005)	(0.004)	(0.004)	(0.007)	(0.003)	(0.0405)	(0.043)	(0.032)

gaz	-0.024	0.01	-0.019	-0.014	0.036	-0.005	0.093	-0.052	0.058
	(0.017)	(0.026)	(0.014)	(0.022)	(0.046)	(0.019)	(0.057)	(0.058)	(0.047)
mineral	0.093***	0.018	0.072***	0.114***	-0.012	0.094***	0.054	-0.03	0.029
	(0.023)	(0.044)	(0.023)	(0.026)	(0.059)	(0.026)	(0.047)	(0.055)	(0.041)
Islamic			-0.00850			-0.451			0.353
			(0.649)			(0.774)			(0.935)
BCP × Islamic			-0.00326			0.00349			-0.008
(α_{inter})			(0.00815)			(0.00966)			(0.012)
Constant	3.190***	0.244	3.088***	2.805***	-0.902	2.537***	3.646***	1.435	3.522***
	(0.441)	(1.684)	(0.432)	(0.543)	(2.463)	(0.568)	(0.530)	(2.270)	(0.524)
Obs.	1891	261	2152	932	138	1070	1490	126	1616
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.145	0.348	0.144	0.218	0.386	0.202	0.132	0.403	0.131
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel B.2 Impact of BCP compliance ($\alpha_{BCP} + \alpha_{inter}$) on Islamic banks' stability compared to conventional banks (α_{BCP}) after excluding UK, unlisted, and listed banks									
			0.014*			0.024**			0.01
			(0.008)			(0.009)			(0.011)
Panel C.1 Alternative samples: breakdown by crisis periods									
	Excluding the period before the 2007/2009 crisis			Excluding the 2007/2009 crisis period			Excluding the period after the 2007/2009 crisis		
	CBs	IBs	Full	CBs	IBs	Full	CBs	IBs	Full
Variable	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BCP (α_{BCP})	0.006*	0.016*	0.008**	0.021***	0.005	0.021***	0.012***	0.004	0.014***
	(0.003)	(0.008)	(0.003)	(0.003)	(0.010)	(0.003)	(0.003)	(0.011)	(0.003)
lnta	-0.018	0.139	-0.009	-0.051**	0.223*	-0.042*	-0.047**	0.064	-0.053***
	(0.022)	(0.115)	(0.022)	(0.023)	(0.116)	(0.022)	(0.020)	(0.096)	(0.020)
gtap	-0.002**	0.0001	-0.002*	-0.002*	-0.001	-0.002*	-0.002**	0.000	-0.002**
	(0.001)	(0.002	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)
cirp	-0.005***	-0.003***	-0.005***	-0.007***	-0.003**	-0.006***	-0.008***	-0.004*	-0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001	(0.001)	(0.002)	(0.001)
niitip	0.08	-0.198	0.002	-0.166	-0.061	-0.181	-0.15	-0.086	-0.175*
	(0.178)	(0.245)	(0.154)	(0.121)	(0.399)	(0.113)	(0.108)	(0.217)	(0.103)
ladstfp	0.002**	0.000	0.001	0.001	0.002*	0.001	0.002***	-0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
wgi	0.255***	0.073	0.252***	0.217***	0.146	0.219***	0.296***	0.146	0.266***
	(0.066)	(0.191)	(0.061)	(0.063)	(0.200)	(0.059)	(0.061)	(0.170)	(0.056)
gdpg	0.041***	-0.033	0.032***	-0.007	0.053	-0.003	0.042***	0.017	0.041***
	(0.010)	(0.022)	(0.009)	(0.014)	(0.039)	(0.013)	(0.009)	(0.028)	(0.009)
inf	-0.005	0.035***	0.007	-0.043***	-0.055***	-0.043***	-0.022***	0.022*	-0.013***
	(0.005)	(0.012)	(0.005)	(0.005)	(0.019)	(0.005)	(0.004)	(0.013)	(0.004)
oil	0.001	-0.018**	-0.004	0.010**	-0.005	0.008**	-0.022***	-0.017***	-0.019***
	(0.006	(0.007)	(0.005)	(0.004)	(0.008)	(0.004)	(0.007)	(0.006)	(0.005)
gaz	-0.058***	0.012	-0.045***	-0.001	0.08**	0.006	-0.011	0.004	-0.011
	(0.018)	(0.030)	(0.015)	(0.021)	(0.040)	(0.019)	(0.018)	(0.023)	(0.015)
mineral	0.085***	0.01	0.057**	0.125***	0.364	0.126***	0.092***	-0.000	0.067***
	(0.025)	(0.080)	(0.024)	(0.044)	(0.228)	(0.042)	(0.025)	(0.045)	(0.024)
Islamic			-0.52			0.696			0.816
			(0.688)			(0.731)			(0.872)
BCP × Islamic			0.002			-0.01			-0.014
(α_{inter})			(0.008)			(0.009)			(0.011)
Constant	3.807***	0.753	3.575***	3.607***	-0.146	3.426***	3.796***	1.700	3.611***
	(0.388)	(1.893)	(0.386)	(0.472)	(1.915)	(0.458)	(0.431)	(1.687)	(0.432)
Obs.	1396	178	1574	1744	171	1915	1735	171	1906
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1463	0.4601	0.1694	0.1953	0.3091	0.1947	0.1387	0.3867	0.1379
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel C.2 Impact of BCP compliance ($\alpha_{BCP} + \alpha_{inter}$) on Islamic banks' stability compared to conventional banks (α_{BCP}) using different time periods									
			0.01			0.011			0.001
			(0.008)			(0.009)			(0.010)
Panel D.1 Other subsampling consideration									
	Unstable political environment			Weak protection of depositors			Highly efficient banks		
	CBs	IBs	Full	CBs	IBs	Full	CBs	IBs	Full
Variable	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BCP (α_{BCP})	0.007	0.031	0.009	-0.21*	-0.328**	-0.296***	0.019***	0.015*	0.025***
	(0.006)	(0.026)	(0.006)	(0.119)	(0.159)	(0.098)	(0.004)	(0.009)	(0.003)
lnta	0.006	-0.115	0.001	0.163*	-0.002	0.071	-0.043*	0.154	-0.042*
	(0.046)	(0.189)	(0.044)	(0.083)	(0.219)	(0.068)	(0.024)	(0.096)	(0.023)

gtap	-0.001	0.005	-0.001	0.001	0.001	0.001	-0.003***	0.001	-0.002**
	(0.001)	(0.005)	(0.001)	(0.003)	(0.003	(0.002)	(0.001)	(0.002)	(0.001)
cirp	-0.005***	-0.012***	-0.006***	-0.007***	-0.002	-0.006***	-0.008***	-0.003***	-0.006***
	(0.001)	(0.004)	(0.001)	(0.002)	(0.006)	(0.002)	(0.001)	(0.001)	(0.001)
niitip	-0.19	0.266	-0.195	-0.063	-0.147	-0.213	-0.197	-0.261	-0.222
	(0.141)	(0.555)	(0.142)	(0.389)	(0.334)	(0.254)	(0.185)	(0.233)	(0.159)
ladstfp	0.001	-0.006	0.001	0.01	-0.001	-0.000	0.001	-0.000	0.000
	(0.002)	(0.006)	(0.002)	(0.007)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
wgi	0.806***	-1.086	0.676**	-1.187	-2.402*	-1.889*	0.183**	0.134	0.146**
	(0.312)	(1.449)	(0.295)	(1.411)	(1.457)	(1.056)	(0.076)	(0.158)	(0.066)
gdpg	0.035	0.051	0.031	-0.032	-0.195	-0.066	0.014	0.016	0.023
	(0.026)	(0.074)	(0.025)	(0.121)	(0.148)	(0.096)	(0.020)	(0.027)	(0.016)
inf	-0.031**	-0.07	-0.032***	-0.004	0.048*	0.015	-0.044***	0.023*	-0.018***
	(0.013)	(0.049)	(0.012)	(0.012)	(0.027)	(0.012)	(0.007)	(0.012)	(0.006)
oil	0.01	0.127	0.012	-0.221***	-0.119	-0.195***	0.003	-0.016***	-0.000
	(0.042)	(0.183)	(0.038)	(0.058)	(0.122)	(0.050)	(0.005)	(0.006)	(0.004)
gaz	-0.053	0.0247	-0.046	0.444***	0.301	0.426***	0.018	0.019	0.016
	(0.039)	(0.211)	(0.035)	(0.111)	(0.225)	(0.096)	(0.031)	(0.026)	(0.021)
mineral	-0.011	0.416*	-0.007	0.346***	0.096	0.279***	0.077	0.046	0.046
	(0.083)	(0.239)	(0.078)	(0.069)	(0.067)	(0.056)	(0.051)	(0.071)	(0.038)
Islamic			0.06			-2.006			0.702
			(0.709)			(1.560)			(0.692)
BCP × Islamic			-0.003			0.025			-0.012
(α_{inter})			(0.009)			(0.020)			(0.008)
Constant	3.553***	2.805	3.529***	12.85**	21.69**	19.13***	3.523***	0.493	2.957***
	(0.738)	(3.099)	(0.710)	(5.898)	(9.702)	(5.337)	(0.524)	(1.651)	(0.469)
Obs.	842	95	937	177	76	253	1068	261	1329
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.2626	0.4524	0.2657	0.3449	0.4659	0.3205	0.2098	0.3652	0.199
Chi2	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**
Panel C.2 Impact of BCP compliance ($\alpha_{BCP} + \alpha_{inter}$) on Islamic banks' stability compared to conventional banks (α_{BCP}) using other subsamples									
			0.006			-0.272***			0.013
			(0.009)			(0.097)			(0.008)

(Continued)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 6
BCP compliance and bank stability: A quantile regression approach

Panel A. The impact of BCP compliance on bank stability: a comparison across quantiles									
	Conventional banks			Islamic banks			Full sample		
Variable	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score	Z-score
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Model #	Q25	Q50	Q75	Q25	Q50	Q75	Q25	Q50	Q75
BCP (α_{BCP})	0.013***	0.017***	0.018***	0.018	0.013	0.016	0.017***	0.019***	0.019***
	(0.003)	(0.003)	(0.004)	(0.012)	(0.011)	(0.011)	(0.003)	(0.003)	(0.004)
lnta	-0.028	-0.047***	-0.0487**	0.206	0.181*	0.173	-0.025	-0.044**	-0.044**
	(0.022)	(0.018)	(0.022)	(0.152)	(0.106)	(0.150)	(0.023)	(0.019)	(0.020)
gtap	-0.003***	-0.003**	-0.004**	0.002	-0.001	0.000	-0.002*	-0.003***	-0.003
	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)	(0.002)	(0.001)	(0.001)	(0.002)
cirp	-0.009***	-0.009***	-0.007***	-0.005***	-0.004***	-0.005***	-0.009***	-0.008***	-0.006***
	(0.001)	(0.001)	(0.002)	(0.0015)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
niitip	-0.453**	-0.318**	-0.275*	-0.138	-0.26	0.063	-0.478**	-0.297*	-0.323***
	(0.188)	(0.158)	(0.141)	(0.465)	(0.399)	(0.347)	(0.191)	(0.152)	(0.120)
ladstfp	0.002*	0.002**	0.001	0.001	0.001	-0.000	0.001	0.001**	0.001
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)
wgi	0.138**	0.155***	0.092	0.014	0.083	0.017	0.113**	0.138**	0.126**
	(0.058)	(0.055)	(0.068)	(0.184)	(0.213)	(0.257)	(0.057	(0.058)	(0.059)
gdpg	0.056***	0.047***	0.046***	0.036	0.024	0.006	0.056***	0.045***	0.048***
	(0.012)	(0.011)	(0.014)	(0.049)	(0.029)	(0.026)	(0.010)	(0.011)	(0.013)
inf	-0.024***	-0.03***	-0.038***	0.016	0.037***	0.027	-0.012**	-0.021***	-0.027*
	(0.006)	(0.005)	(0.006)	(0.015)	(0.013)	(0.019)	(0.006)	(0.007)	(0.016)
oil	0.002	-0.002	0.005	-0.007	-0.013**	-0.017**	0.000	-0.001	-0.000
	(0.005)	(0.003)	(0.010)	(0.009)	(0.006)	(0.008)	(0.003)	(0.003)	(0.007)
gaz	-0.049***	-0.024	0.013	-0.014	0.011	-0.013	-0.056***	-0.02	0.003
	(0.018)	(0.018)	(0.029)	(0.033)	(0.022)	(0.022)	(0.016)	(0.016)	(0.020)
mineral	0.100***	0.088**	0.081*	0.091	0.077	0.015	0.087***	0.081**	0.061
	(0.023)	(0.036)	(0.042)	(0.059)	(0.169)	(0.154)	(0.024)	(0.038)	(0.042)
Islamic							-0.068	0.625	0.404
							(0.689)	(0.494)	(1.008)
BCP × Islamic ($\alpha_{BCP_{inter}}$)							-0.001	-0.01	-0.010
							(0.009)	(0.006)	(0.012)
Constant	3.030***	3.532***	3.951***	-0.429	0.449	1.325	2.626***	3.215***	3.691***
	(0.433)	(0.318)	(0.432)	(2.358)	(1.854)	(2.386)	(0.446)	(0.336)	(0.505)
Obs.	2606	2606	2606	280	280	280	2886	2886	2886
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1385	0.148	0.128	0.347	0.355	0.358	0.14	0.148	0.137
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
H0: Q25 $\alpha_{BCP_{CBs}}$ = Q75 $\alpha_{BCP_{CBs}}$	0.05						0.11		
H0 Q25 $\alpha_{BCP_{IBs}}$= Q75 $\alpha_{BCP_{IBs}}$				0.04			0.33		
H0: Q25 $\alpha_{BCP_{inter}}$=Q75 $\alpha_{BCP_{inter}}$							0.39		
Panel B. Impact of BCP compliance on different quantiles of Islamic banks' stability ($\alpha_{BCP} + \alpha_{inter}$) compared to conventional banks (α_{BCP})									
							0.017*	0.009	0.009
							(0.008)	(0.006)	(0.011)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 7
BCP compliance and alternative measures of risk

Panel A. The impact of BCP compliance on bank risk												
	Conventional banks				Islamic banks				Full sample			
Variable	LLRGLP	LLPTLP	NPLGLP	SDNIM	LLRGLP	LLPTLP	NPLGLP	SDNIM	LLRGLP	LLPTLP	NPLGLP	SDNIM
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
BCP (α_{BCP})	-0.049***	-0.012**	-0.059**	-0.009***	-0.048	0.012	-0.091	-0.024**	-0.05***	-0.014***	-0.058*	-0.012***
	(0.019)	(0.005)	(0.029)	(0.002)	(0.068)	(0.037)	(0.122)	(0.009)	(0.019)	(0.005)	(0.029)	(0.003)
lnta	-0.653***	0.004	-1.114***	-0.045***	-0.746	-0.185	-1.823	-0.083	-0.652***	-0.005	-1.138***	-0.044**
	(0.152)	(0.032)	(0.237)	(0.013)	(0.826)	(0.299)	(1.312)	(0.174)	(0.152)	(0.035)	(0.232)	(0.022)
gtap	-0.022***	-0.003*	-0.029***	0.002**	-0.028***	-0.004	-0.025	-0.002	-0.023***	-0.003*	-0.03***	0.002**
	(0.004)	(0.001)	(0.007)	(0.001)	(0.009)	(0.005)	(0.019)	(0.005)	(0.004)	(0.001)	(0.007)	(0.001)
cirp	0.007	-0.003	0.019	0.002**	0.052***	0.001	0.062	-0.002	0.016**	-0.002	0.022*	0.001
	(0.007)	(0.003)	(0.012)	(0.001)	(0.006)	(0.006)	(0.043)	(0.002)	(0.007)	(0.002)	(0.012)	(0.001)
niitip	-0.0571	-0.309*	-0.0842	-0.174*	-1.514	-2.797**	-3.199	-1.387*	-0.0693	-0.482**	-0.0762	-0.245**
	(0.529)	(0.184)	(1.034)	(0.101)	(1.642)	(1.123)	(2.911)	(0.746)	(0.516)	(0.195)	(1.015)	(0.114)
ladstfp	0.012	-0.001	0.005	0.001**	0.011	-0.004	-0.01	0.012*	0.011	-0.002	0.003	0.004**
	(0.008)	(0.002)	(0.013)	(0.001)	(0.015)	(0.004)	(0.022)	(0.006)	(0.007)	(0.002)	(0.012)	(0.002)
wgi	0.594	-0.208**	0.756	0.029	0.678	-0.698	2.347	-0.058	0.518	-0.275***	0.728	-0.002
	(0.380)	(0.091)	(0.584)	(0.041)	(1.207)	(0.502)	(1.760)	(0.219)	(0.364)	(0.101)	(0.546)	(0.047)
gdpg	-0.156***	-0.121***	-0.328***	-0.009	-0.342**	-0.027	-0.342	-0.035	-0.17***	-0.117***	-0.329***	-0.009
	(0.044)	(0.012)	(0.067)	(0.008)	(0.150)	(0.121)	(0.246)	(0.065)	(0.042)	(0.014)	(0.065)	(0.009)
inf	0.006	0.023**	0.053	0.021***	0.087	-0.014	0.11	-0.035	0.002	0.015	0.055	0.006
	(0.023)	(0.009)	(0.044)	(0.005)	(0.053)	(0.030)	(0.096)	(0.029)	(0.021)	(0.009)	(0.040)	(0.009)
oil	-0.007	-0.007	-0.021	-0.007***	0.051	0.01	0.032	0.024	0.018	-0.004	-0.012	-0.001
	(0.021)	(0.005)	(0.025)	(0.002)	(0.044)	(0.011)	(0.073)	(0.016)	(0.019)	(0.005)	(0.025)	(0.004)
gaz	0.353***	0.066**	0.024	-0.002	0.404**	0.099	0.332	0.197**	0.328***	0.076**	0.055	0.038*
	(0.104)	(0.031)	(0.166)	(0.008)	(0.166)	(0.108)	(0.492)	(0.091)	(0.091)	(0.031)	(0.158)	(0.021)
mineral	-0.433***	-0.084**	-0.463***	-0.032**	0.056	-0.229	-0.202	0.003	-0.385***	-0.09**	-0.464***	-0.029
	(0.126)	(0.042)	(0.175)	(0.014)	(0.291)	(0.182)	(0.232)	(0.070)	(0.122)	(0.038)	(0.164)	(0.019)
Islamic									0.432	-1.304	-1.316	-0.113
									(6.001)	(2.665)	(7.696)	(0.607)
BCP × Islamic (α_{inter})									-0.004	0.023	0.011	0.008
									(0.073)	(0.033)	(0.093)	(0.007)
Constant	18.48***	2.571***	29.07***	1.770***	18.15	3.401	38.75*	3.427	17.97***	2.821***	29.13***	1.876***
	(2.491)	(0.599)	(4.028)	(0.303)	(15.24)	(5.857)	(21.86)	(3.049)	(2.513)	(0.639)	(3.997)	(0.430)
Obs.	2459	2449	1937	2636	246	248	164	283	2705	2697	2101	2919
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.1703	0.0862	0.1405	0.1533	0.4479	0.1942	0.3495	0.2837	0.1819	0.0832	0.1459	0.1207
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel B. Impact of BCP compliance on Islamic banks' risk ($\alpha_{BCP} + \alpha_{inter}$) compared to conventional banks (α_{BCP})												
									-0.053	0.009	-0.047	-0.003
									(0.070)	(0.032)	(0.088)	(0.007)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 8
Robustness checks: Alternative estimation techniques

Panel A: Alternative estimation techniques and standards errors

	Conventional banks			Islamic banks			Full sample		
Variable	Truncated Z-score	Bootstrap Z-score	White Z-score	Truncated Z-score	Bootstrap Z-score	White Z-score	Truncated Z-score	Bootstrap Z-score	White Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BCP (α_{BCP})	0.019***	0.015***	0.016***	0.005	0.016***	0.017***	0.018***	0.017***	0.018***
	(0.003)	(0.002)	(0.002)	(0.006)	(0.004)	(0.006)	(0.003)	(0.002)	(0.002)
lnta	-0.033**	-0.039***	-0.049***	0.143**	0.149**	0.16**	-0.024*	-0.035***	-0.045***
	(0.016)	(0.014)	(0.011)	(0.072)	(0.067)	(0.065)	(0.014)	(0.011)	(0.011)
gtap	-0.002*	-0.002***	-0.003***	-0.000	0.001	0.001	-0.001	-0.002***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
cirp	-0.007***	-0.007***	-0.008***	-0.006***	-0.003**	-0.004***	-0.006***	-0.006***	-0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
niitip	-0.645***	-0.098	-0.232***	-0.246	-0.162	-0.175	-0.459***	-0.134	-0.256***
	(0.155)	(0.082)	(0.088)	(0.248)	(0.239)	(0.205)	(0.146)	(0.085)	(0.084)
ladstfp	0.002***	0.001**	0.002***	0.000	-0.000	0.000	0.002***	0.000	0.001**
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)
wgi	0.071	0.267***	0.119***	0.110	0.066	0.036	0.093**	0.248***	0.117***
	(0.048)	(0.039)	(0.035)	(0.115)	(0.099)	(0.103)	(0.0435)	(0.035)	(0.033)
gdpg	0.06***	0.038***	0.056***	-0.009	0.013	0.002	0.058***	0.038***	0.053***
	(0.011)	(0.008)	(0.007)	(0.028)	(0.022)	(0.022)	(0.011)	(0.009)	(0.007)
inf	-0.02**	-0.025***	-0.027***	0.021*	0.021*	0.025**	-0.018**	-0.015***	-0.017***
	(0.008)	(0.004)	(0.004)	(0.013)	(0.013)	(0.012)	(0.008)	(0.004)	(0.004)
oil	0.001	-0.003	-0.000	-0.011**	-0.013***	-0.012***	0.000	-0.005**	-0.002
	(0.004)	(0.004)	(0.003)	(0.005	(0.004)	(0.004)	(0.003)	(0.002)	(0.002)
gaz	-0.021	-0.027**	-0.023**	-0.03	0.023	0.001	-0.029**	-0.021**	-0.023***
	(0.014)	(0.011)	(0.010)	(0.020)	(0.024)	(0.017)	(0.011)	(0.009)	(0.009)
mineral	0.084***	0.104***	0.084***	0.037	0.032	0.068	0.095***	0.08***	0.072***
	(0.028)	(0.018)	(0.019)	(0.067)	(0.075)	(0.057)	(0.026)	(0.020)	(0.018)
Islamic							0.624	0.204	0.106
							(0.504)	(0.307)	(0.392)
BCP × Islamic (α_{inter})							-0.01	-0.007	-0.004
							(0.006)	(0.004)	(0.005)
Constant	3.304***	3.679***	3.448***	1.827	0.390	-0.0593	3.137***	3.466***	3.052***
	(0.324)	(0.275)	(0.237)	(1.204)	(1.099)	(1.007)	(0.296)	(0.225)	(0.248)
Obs.	2113	2606	2606	235	280	280	2355	2886	2886
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2		0.1398	0.1514		0.3683	0.3836		0.1432	0.1533
Chi2	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Panel B. Impact of BCP compliance on Islamic banks' stability ($\alpha_{BCP} + \alpha_{inter}$) compared to conventional banks (α_{BCP})									
							0.008	0.011***	0.014***
							(0.006)	(0.003)	(0.005)

Panel B: Propensity scores matching

	Conventional banks			Islamic banks			Full sample		
	Treated/ controls	Diff.	*T* stat	Treated/ controls	Diff.	*T* stat	Treated/ controls	Diff.	*T* stat
K-Nearest neighbors									
n = 10	3.737	0.169	1.68*	3.595	0.261	0.89	3.727	0.465	5.36***
	3.568			3.333			3.262		
n = 15	3.737	0.288	3.00***	3.595	0.267	1.02	3.727	0.425	4.94***
	3.45			3.328			3.301		
n = 20	3.737	0.259	2.79***	3.595	0.276	1.12	3.727	0.424	5.08***
	3.478			3.319			3.302		
Kernel	3.737	0.123	1.2	Dropped			3.727	0.443	5.28***
	3.614						3.284		
Radius	3.737	0.261	6.65***	3.595	0.384	3.11***	3.727	0.273	7.28***
	3.476			3.211			3.454		

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 9

BCP compliance and bank stability: Checking for endogeneity

Panel A. The impact of BCP compliance on bank stability

	Conventional banks					Islamic banks					Full sample				
	IV approach			Heckman		IV approach			Heckman		IV approach			Heckman	
Variable	First stage Z-score	2SLS Z-score	GMM Z-score	Selection equation Z-score	Outcome equation Z-score	First stage Z-score	2SLS Z-score	GMM Z-score	Selection equation Z-score	Outcome equation Z-score	First stage Z-score	2SLS Z-score	GMM Z-score	Selection equation Z-score	Outcome equation Z-score
Model #	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
BCP (α_{BCP})		0.013***	0.013***		0.019***		-0.003	0.008		0.024**		0.014***	0.014***		0.02***
		(0.003)	(0.003)		(0.004)		(0.010)	(0.018)		(0.010)		(0.002)	(0.002)		(0.004)
Rule of law	0.4***			0.067***		0.33***			0.017***		0.374***			0.058***	
	(0.015)			(0.002)		(0.044)			(0.004)		(0.013)			(0.002)	
Business	1.602***			-0.099		1.498			0.299***		1.645***			0.009	
Regulation	(0.331)			(0.048)		(0.915)			(0.072)		(0.284)			(0.033)	
lnta	0.248***	-0.048***	-0.05***	-0.05***	-0.049***	0.39	0.144**	0.691**	-0.136*	0.135	0.274***	-0.04***	-0.044***	-0.045***	-0.046**
	(0.061)	(0.011)	(0.011)	(0.015)	(0.018)	(0.747)	(0.068)	(0.336)	(0.078)	(0.094)	(0.061)	(0.011)	(0.011)	(0.014)	(0.018)
gtap	0.004	-0.002***	-0.01***	-0.002**	-0.002***	-0.026**	0.001	0.004	0.002	0.002	-0.001	-0.002**	-0.002***	-0.002**	-0.002**
	(0.004)	(0.001)	(0.000)	(0.001)	(0.001)	(0.013)	(0.002)	(0.003)	(0.002)	(0.00185)	(0.004)	(0.001)	(0.001)	(0.001)	(0.001)
cirp	0.022***	-0.008***	-0.01***	-0.01***	-0.008***	0.001	-0.004***	-0.006**	-0.006***	-0.004***	0.01*	-0.01***	-0.008***	-0.008***	-0.01***
	(0.006)	(0.001)	(0.001)	(0.001)	(0.001)	(0.009)	(0.001)	(0.001)	(0.001)	(0.001)	(0.005)	(0.001)	(0.000)	(0.001)	(0.001)
niitip	0.046	-0.167*	-0.167*	-0.069	-0.165	-3.365	-0.227	-0.509	-0.983***	-0.141	0.296	-0.185**	-0.186**	-0.124	-0.185*
	(0.656)	(0.088)	(0.088)	(0.114)	(0.114)	(2.749)	(0.204)	(0.457)	(0.361)	(0.206)	(0.617)	(0.084)	(0.084)	(0.109)	(0.107)
ladstfp	-0.003	0.002***	0.002***	0.002***	0.002***	-0.001	0.000	0.002	0.001	0.000	-0.008***	0.001***	0.001***	0.002***	0.001**
	(0.002)	(0.000)	(0.000)	(0.001)	(0.000)	(0.005)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)
wgi	-0.317	0.039	0.039	0.158	0.046	2.319**	0.155	-0.273	-0.297	0.155	-0.715**	0.038	0.037	0.144	0.046
	(0.324)	(0.038)	(0.038)	(0.121)	(0.053)	(1.107)	(0.117)	(0.326)	(0.337)	(0.168)	(0.300)	(0.035)	(0.035)	(0.114)	(0.049)
gdpg	-0.1222*	0.048***	0.048***	0.067***	0.046***	-0.271	-0.023	0.082	-0.024	-0.007	-0.151**	0.042***	0.043***	0.061	0.041***
	(0.064)	(0.009)	(0.009)	(0.021)	(0.011)	(0.266)	(0.022)	(0.074)	(0.060)	(0.024)	(0.059)	(0.009)	(0.009)	(0.020)	(0.010)
inf	-0.145***	-0.018***	-0.02***	-0.03***	-0.017***	0.079	0.028**	-0.05	0.018	0.023**	-0.092***	-0.008*	-0.008*	-0.021**	-0.007
	(0.039)	(0.005)	(0.005)	(0.010)	(0.005)	(0.144)	(0.012)	(0.049)	(0.020)	(0.011)	(0.034)	(0.004)	(0.004)	(0.009)	(0.004)
oil	0.013	0.002	0.002	-0.035**	0.002	-0.125***	-0.015***	-0.04***	0.071	-0.01*	-0.009	-0.0005	-0.000	-0.03**	-0.000
	(0.022)	(0.003)	(0.003)	(0.016)	(0.004)	(0.040)	(0.004)	(0.013)	(0.043)	(0.005)	(0.015)	(0.002)	(0.002)	(0.015)	(0.003)
gaz	0941***	-0.025**	-0.025**	0.031	-0.029*	0.234	0.012	-0.065	0.139	0.002	0.692***	-0.024**	-0.026***	0.034	-0.027*
	(0.102)	(0.0112)	(0.011)	(0.028)	(0.017)	(0.153)	(0.018)	(0.050)	(0.095)	(0.022)	(0.244)	(0.009)	(0.009)	(0.027)	(0.014)
mineral	1.698***	0.08***	0.08***	0.145**	0.07**	-0.18	0.065	-0.231	0.085	0.068	1.378***	0.068***	0.068***	0.15**	0.061**
	(0.272)	(0.019)	(0.019)	(0.062)	(0.028)	(0.685)	(0.059)	(0.197)	(0.807)	(0.071)	(0.244)	(0.019)	(0.019)	(0.059)	(0.026)
Islamic											-46.17***	-0.31	-0.289	5.446*	-0.025
											(2.173)	(0.402)	(0.401)	(2.879)	(0.669)
BCP × Islamic											0.577***	0.001	0.001	-0.061*	-0.002
(α_{inter})											(0.030)	(0.005)	(0.005)	(0.032)	(0.008)
Inverse Mills					0.077					0.612*					0.072
					(0.059)					(0.346)					(0.059)
Constant	39.76***	3.889***	3.887***	5.111***	2.423***	50.94***	2.284	-7.849	5.552***	-2.763	42.164***	3.760***	3.749***	5.064***	2.119***
	(0.331)	(0.261)	(0.261)	(0.300)	(0.493)	(0.915)	(1.393)	(6.420)	(0.072)	(1.789)	(1.837)	(0.257)	(0.257)	(0.282)	(0.478)
Obs.	2362	2362	2362	3979	2362	263	263	263	567	263	2625	2625	2625	4546	2625
YFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2/Ps. R2	0.7272	0.1496	0.15		0.1513	0.44	0.3534	0.3435		0.4084	0.691	0.153	0.153		0.155
F test	0.00***					0.00***					0.00***				
Chi2		0.00***		0.00***			0.00***		0.00***			0.00***	0.00***	0.00***	
Sar/Han. J		0.029	0.026				6.148**	5.62**				1.946	1.729		
Panel B. Impact of BCP compliance on Islamic banks' stability ($\alpha_{BCP} + \alpha_{inter}$) compared to conventional banks (α_{BCP})															
												0.016***	0.015***		0.018**
												(0.005)	(0.005)		(0.008)

Notes: Standard errors are clustered at the bank level and are reported in parentheses below their coefficient estimates.

* Statistical significance at the 10% level.

** Statistical significance at the 5% level.

*** *Statistical significance at the 1% level.*

Table A.1
Comparison between BCPs compliance chapters and CPIFRs chapters

Organization	IMF and World Bank Basel Core Principles (BCPs)	IFSB Core Principles for Islamic Finance Regulation (CPIFR)
Program	Basel core Financial Sector Assessment Program (FSAP)	Core Principles for Islamic Finance Regulation Working Group (CPIFRWG)
Starting date	1999	January 2016 or later
Objective	To promote the stability and soundness of the financial sector, and to assess its potential contribution to growth and development.	Provide a set of core principles for the regulation and supervision, taking into consideration the specificities of Islamic banks and complementing BCPs compliance standards.
Principle 1	Objectives, Independence, powers, and transparency	Retained unchanged
Principle 2	Permissible activities	Clear definition of licensed Islamic banks' permissible activities that are subject to supervision by regulatory authorities.
Principle 3	Licensing criteria	Retained unchanged
Principle 4	Transfer of significant ownership	Retained unchanged
Principle 5	Major acquisitions	Whenever major acquisitions lead to higher risk or weak supervision, the regulatory authorities have the power to reject the acquisitions by Islamic banks and impose more prudential conditions.
Principle 6	Capital adequacy	Regulatory capital should be compliant with the Sharia'a law. Accordingly, regulatory authorities requires Islamic banks to adopt an appropriate capital adequacy approach by considering the particularities of Islamic banks (the extent of risk-sharing between bank shareholders (bank capital) and IAHs (depositors)).
Principle 7	Risk management process	Regulatory authorities require Islamic banks to establish a comprehensive risk management process, including effective BOD and senior management, appropriate steps to comply with the *Sharia'a* law, and the development of contingency arrangements. This process depends on the Islamic banks' risk profile and their systemic importance.
Principle 8	Credit risk	Regulatory authorities require Islamic banks to create an adequate credit risk management process (taking into account bank risk appetite, risk profile and market and macroeconomic conditions) that covers the full credit lifecycle including credit underwriting, credit evaluation, and the management of Islamic banks' financing and investment portfolios on a timely basis.
Principle 9	Problem assets, provisions and reserves	Islamic banks should implement adequate policies to early identify and manage of problem assets and to maintain an adequate amount of provisions and reserves.
Principle 10	Large exposure limits	Regulatory authorities determine whether Islamic banks have adequate policies to identify, measure and control concentrations of risk. Regulators also set prudential limits to restrict bank exposures to single counterparties or groups of connected counterparties.
Principle 11	Exposures to related parties	To prevent the risk of conflict of interest with related parties, the supervisory authority requires Islamic banks to monitor transactions with these parties; to take appropriate steps to control or mitigate the risks; and to write off exposures in accordance with standard policies and processes.
Principle 12	Country and transfer risks	Retained unchanged
Principle 13	Market risk	Regulatory authorities determine whether Islamic banks have an adequate market risk management (taking into account bank risk appetite, risk profile, and market and macroeconomic conditions) to identify, measure and control market risk on a timely basis.
Principle 14	Liquidity risk	Regulatory authorities provide the appropriate liquidity instruments for the needs of Islamic banks. These authorities also determine whether Islamic banks have an adequate liquidity risk management (taking into account bank risk appetite, risk profile, and market and macroeconomic conditions) to identify, measure and control liquidity risk on a timely basis.
Principle 15	Operational risk	Regulatory authorities determine whether Islamic banks have an adequate operational risk management framework (taking into account bank risk appetite, risk profile, and market and macroeconomic conditions) to identify, measure and control operational risk on a timely basis.
Principle 16	Interest rates in the banking book	Rate of return risk instead of interest rates in the banking book. Regulatory authorities determine whether Islamic banks have an adequate system (taking into account bank risk appetite, risk profile, and market and macroeconomic conditions) to identify, measure and control rate of return risk on a timely basis. Regulators can also assess the capacity of an Islamic bank to manage the rate of return risk and any resultant displaced commercial risk, and obtain sufficient information to assess bank IAHs' behavior and their maturity profiles.
Principle 17	Internal control and audit	Regulatory authorities determine whether Islamic banks have adequate internal control frameworks to establish and maintain a properly controlled operating environment for the conduct of their business taking into account their risk profile.

Organization	IMF and World Bank Basel Core Principles (BCPs)	IFSB Core Principles for Islamic Finance Regulation (CPIFR)
Principle 18	Abuse of financial services	Retained unchanged
Principle 19	Supervisory approach	Retained unchanged
Principle 20	Supervisory techniques	Regulatory authorities employ the adequate instruments to implement their supervisory approach taking into account the risk profile and systemic importance of an Islamic bank.
Principle 21	Supervisory reporting	The supervisory authority collects, reviews and analyses prudential reports and statistical returns from Islamic banks on both a solo and a consolidated basis, and independently verifies these reports through either on-site examinations or use of external experts.
Principle 22	Accounting and disclosure	Retained unchanged
Principle 23	Corrective and remedial powers of supervisors	Regulatory authorities possess a range of tools to take corrective actions at early stage to address unsafe practices or activities that could pose risks to an Islamic bank or to the banking system, i.e. the ability to revoke the banking license or to recommend its revocation.
Principle 24	Consolidated supervision	Regulatory authorities supervise the banking group on a consolidated basis, they adequately monitor and apply prudential standards to all aspects of the business conducted by the banking group worldwide.
Principle 25	Home-host relationships	Home and host regulatory authorities of cross-border banking groups share information and cooperate for effective supervision of the group and group entities. Supervisory authorities require the local operations of foreign Islamic bank to be conducted to the same standards as those required of domestic Islamic bank.
Principle 26	Non applicable	Treatment of Investment Account Holders (IAHs). The regulatory authorities determine how IAHs are treated and also determine the various implications (including the regulatory treatment, governance and disclosures, and capital adequacy and associated risk-absorbency features, etc.) relating to IAHs within its jurisdiction.
Principle 27	Non applicable	*Sharia'a* governance framework. Regulatory authorities determine whether Islamic banks have a robust *Sharīa'a* governance system to ensure an effective independent oversight of *Sharīa'a* compliance over various structures and processes within the organizational framework. The *Sharīa'a* governance structure adopted by an IIFS is commensurate and proportionate with the size, complexity and nature of its business. The supervisory authority also determines the general approach to *Sharīa'a* governance in its jurisdiction, and lays down key elements of the process.
Principle 28	Non applicable	Equity investment risk. Regulatory authorities satisfy themselves through adequate policies and procedures including appropriate strategies, risk management and reporting processes are in place for equity investment risk management, including *Muḍarabah* and *Musharakah* investments in the banking book (i.e. financing on a profit-and-loss sharing basis), taking into account Islamic banks' appetite and tolerance for risk. In addition, the supervisory authority ensures that Islamic banks have in place appropriate and consistent valuation methodologies; define and establish the exit strategies in respect of their equity investment activities; and have sufficient capital when engaging in equity investment activities.
Principle 29	Non applicable	Islamic "windows" operations. Supervisory authorities define what forms of Islamic "windows" are permitted in their jurisdictions. The supervisory authorities review Islamic windows' operations within their supervisory review process using the existing supervisory tools. The supervisory authorities in jurisdictions where windows are present satisfy themselves that the institutions offering such windows have the internal systems, procedures and controls to provide reasonable assurance that:

(Continued)

Table A.2
Variable definitions

Variables	Definition	Data sources
Z-score	measure of bank insolvency calculated as the natural logarithm of ((ROAAP+TETAP)/SDROAA), where ROAAP is the return on average assets, TETAP represents the equity to assets ratio and SDROAA stands for the standard deviation of the return on average assets.	Authors' calculation
AROAA	A measure of risk-adjusted return on average assets. It is calculated as the return on average assets divided by the standard deviation of ROAA.	Authors' calculation
LLRGLP	Bank reserves for loan losses divided by gross loans times 100	Authors' calculation
LLPTLP	Bank provisions for loan losses divided by total loans times 100	Authors' calculation
NPLGLP	Bank non-performing loans divided by gross loans times 100	Authors' calculation
SDNIM	The standard deviation of Net interest margin for a three-year period	Authors' calculation
lnta	The natural logarithm of total assets	Bankscope
gtap	The current year growth rate of bank total assets compared with the previous year's total assets.	Bankscope
cirp	The share of bank costs to bank income before provisions times 100	Bankscope
niitip		
ladstfp	The ratio of liquid assets to deposits and short term funding. It measures and assesses the sensitivity to bank runs; therefore, it promotes financial soundness but it can also be interpreted as excess of liquidity coverage.	Bankscope
BCP index	An overall index, computed as the average of seven chapters defined below. This index takes values between 0 and 100, with values closer to 100 suggesting a greater compliance with the BCPs.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 1	This index is a normalized sum of the rates of compliance with sub-principles of principle 1 and measures the extent to which the preconditions for effective banking supervision have been met: 1(1): There should be clear responsibilities and objectives set by legislation for each supervisory agency; 1(2): Each supervisory agency should possess adequate resources to meet the objective set, provided on terms that do not undermine the autonomy, integrity and independence of supervisory agency; 1(3): A suitable framework of banking laws, setting bank minimum standard, including provisions related to authorization of banking establishments and their supervision; 1(4): The legal framework should provide power to address compliance with laws as well as safety and soundness concerns; 1(5): The legal framework should provide protection of supervisors for actions taken in good faith in the course of performing supervisory duties; and 1(6): There should be arrangements of interagency cooperation, including with foreign supervisors, for sharing information and protecting the confidentiality of such information. This index takes values between 0 and 100, with values closer to 100 indicate better adherence to these preconditions.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 2	This index is a normalized sum of the compliance rates of principles 2-5; 2: Definition of permissible activities; 3: Right to set licensing criteria and reject applications for establishments that do not meet the standard sets; 4: Authority to review and reject proposals for significant ownership changes; and 5: Authority to establish criteria for reviewing major acquisitions or investments. This index takes values between 0 and 100, with values closer to 100 indicate greater power of supervisors to licence and influence structure.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 3	Measures the prudence and appropriateness of the minimum capital adequacy requirements that supervisors set. This index is the normalized sum of the rates of compliance with principles 6–15: 6: Prudent and appropriate risk-adjusted capital adequacy ratios must be set; 7: Supervisors should evaluate banks' credit policies; 8: Banks should adhere to adequate loan evaluation and loan-loss provisioning policies; 9: Supervisors should set limits to restrict large exposures, and concentration in bank portfolios should be identifiable; 10: Supervisors must have in place requirements to mitigate the risks associated with related lending; 11: Policies must be in place to identify, monitor, and control country risks, and to maintain reserves against such risks; 12: Systems must be in place to accurately measure, monitor, and adequately control markets risks, and supervisors should have powers to impose limits or capital charge on such exposures; 13: Banks must have in place a comprehensive risk management process to identify, measure, monitor, and control all other material risks and, if needed, hold capital against such risks; 14: Banks should have internal control and audit systems in place; and 15: Adequate policies, practices, and procedures should be in place to promote high ethical and professional standards and prevent the bank being used by criminal elements. This index takes values between 0 and 100, with values closer to 100 indicating a greater compliance cost for banks of adherence to the minimum capital requirements.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 4	This measures the extent of the ongoing supervision. This index is calculated as the normalized sum of the rates of compliance rates with principles 16–20: 16: An effective supervisory system should consist of on-site and off-site supervision; 17: Supervisors should have regular contact with bank management; 18: Supervisors must have a means of collecting, reviewing, and analyzing prudential reports and statistics returns from banks on a solo and consolidated basis; 19: Supervisors must have a means of independent validation of supervisory information, either through on-site examinations or use of external auditors; and 20: Supervisors must have the ability to supervise banking groups on a consolidated basis. This index takes values between 0 and 100, with values closer to 100 suggesting higher levels of on-going supervision.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database

Variables	Definition	Data sources
Chapter 5	A measure of the required extent of a bank's internal financial records. This variable is the normalized compliance rate for principle 21: Each bank must maintain adequate records that enable the supervisor to obtain a true and fair view of the financial condition of the bank, and must publish on a regular basis financial statements that fairly reflect its condition. This variable takes values between 0 and 100, with values closer to 100 suggesting more requirements for information disclosure on banks by supervisors.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 6	A measure of the formal powers of supervisors, calculated as the normalized compliance rate of principle 22: Adequate supervisory measures must be in place to bring about corrective action when banks fail to meet prudential requirements when there are regulatory violations, or when depositors are threatened in any other way. This should include the ability to revoke the banking license or recommend its revocation. This index takes values between 0 and 100, with values closer to 100 indicating greater supervisory powers.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
Chapter 7	Measures the extent to which supervisors apply global consolidated supervision over internationally active banks. This index is calculated as the normalized sum of the compliance rates of principles 23-25: 23: Supervisors must practice global consolidated supervision over internationally active banks, adequately monitor, and apply prudential norms to all aspects of the business conducted by these banks; 24: Consolidated supervision should include establishing contact and information exchange with the various supervisors involved, primarily host country supervisory authorities; 25: Supervisors must require the local operations of foreign banks to be conducted at the same standards as required of domestic institutions, and must have powers to share information needed by the home country supervisors of those banks. This index takes values between 0 and 100, with values closer to 100 suggesting a movement towards global consolidated supervision.	IMF/World Bank Basel Core Financial Sector Assessment Program (FSAP) database
wgi	The world governance index is the average of six governance dimensions including: (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption.	World governance indicators database (The World Bank and Kaufmann et al. (2013))
gdpg	Growth rate of GDP	World Development Indicators (WDI)
inf	Inflation rate, based on changes in the consumer price index	World Development Indicators (WDI)
oil	Oil rents are the difference between the value of crude oil production at world prices and total costs of production.	World Development Indicators (WDI)
gaz	Natural gas rents are the difference between the value of natural gas production at world prices and total costs of production.	World Development Indicators (WDI)
mineral	Mineral rents are the difference between the value of production for a stock of minerals (tin, gold, lead, zinc, copper, nickel, silver, bauxite, and phosphate) at world prices and total costs of production.	World Development Indicators (WDI)

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