Part Ten

Financial Stability and Statistics
Instructions of Financial Stability and Statistics Department

1- With reference to Circular no. (4/2009) dated 20/1/2009, and to conduct studies and researches related to banking and financial system stability in Qatar, kindly provide the Financial Stability and Statistics Department with the following periodical data:

A- Monthly Data

- Financial stability data according to tables No. (1) up to (18) in annex no. (140).
- Credit classification by economic sectors (activities) according to tables in annex no. (2).
- Average Interest rate (Return) according to tables in annex no. (4).
- Value of transactions conducted through:
  - ATM and credit cards issued by the bank for residents and used abroad.
  - ATM and credit cards issued outside Qatar for no-residents and used through the bank.
  - Government letter of credits (Government purchases from abroad).

B- QCB Portal Activation:

Banks shall update Qatar’s balance of payment through QCB Portal. Kindly add data related to balance of payment forms as from year 2011 on monthly basis and forward data to QCB by hand until further notification to banks.

Kindly provide The Financial Stability and Statistics Department with data related to LCs opened from 1/1/2008 up to 30/6/2009 through the tables attached to annex no. (145). The said table shall be sent monthly to QCB as from 31/7/2009 within one week from the period determined, circular no. (61/2009).

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308 Periodical data is mentioned in Part Twelve in page no. (573).
B- Quarterly Data

- Balance of payments data according to tables in annex no. (11).
- International investment position according to tables in annex no. (11).
- Letters of credit including the following information:
  - Imports value (FOB)
  - Freight expenses
  - Type of carrier (resident – non-resident).
  - Type of Insurance Company (resident – non-resident)
- Banks Lending Activities:
  - With reference to the above subject, kindly fill up tables attached to annex no. (158) and send them on quarterly basis before 15\textsuperscript{th} day of the following month as from data of quarter ended as at September 2010. Note that a copy shall be sent by email to the officer in charge for following up with The financial stability department.

C- Consumer Loans approved biannually, list attached in annex no. (167).

2- Each bank should assign a liaison officer to coordinate directly with the Financial Stability and Statistics Department. Liaison officers contact information (Telephone number, Mobile phone number, Fax number, and Email) should be provided to Financial Stability and Statistics Department.

3- Establishing Data Base at Financial Stability Department for banking system employees in Qatar (biannually)

QCB is willing to establish data base for all employees at the banking system in Qatar, as such all HR departments at banks should fill up the attached tables no. (1) to (7) in annex no. (144) in an accurate manner considering the various information systems used by banks and employees details.

Kindly provide Financial Stability and Statistics Department with the required data, possibility of application, obstacles, and period required to change the information systems, if any, within 15 days as from the date of issuing the circular. The required

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\(^{312}\) Refer to circular no. (43/2009) dated 21/5/2009. Item (c) as per FS dept letter no. (a s h/19/2012) dated 19/1/2012
data will be sent each 6 month via CD (30th June and 31st December) before the 15th day of each calendar month.

4- Accounts for Charity Purposes (Monthly)

As per article (79) of QCB decree law no. 33 of 2006, kindly provide us with monthly data relating to accounts of charity purposes which is being used to transfer money abroad as from the beginning of 2009 to be used in the Qatar balance of payments.

5- Banking Lending Survey (Quarterly)

Referring to the above mentioned, kindly fill up banking credit survey on QCB Portal before end of January 2010 and continue upload the lending survey data in a quarterly basis during the last two weeks of each quarter.

6- Transactions outside Qatar (National banks) (Quarterly)

Kindly fill up attached tables in annex no. (149) and send them quarterly before ending of the 15th day of the following month as from data of March 2010.

7- Financial Stability and Statistics Administrative Structure

Financial Stability and Statistics administrative Structure was approved according to the administrative decision no. 51/2010 by the QCB governor on 10/5/2010. The decision is attached hereto in annex no. (152).

8- Stress Testing

First: Measuring, monitoring and controlling various types of risk is important for ensuring sound health of the banking institutions as well as of the financial system as a whole. In this regard, the use of stress tests to ascertain the resilience of banks and other financial institutions to various risk factors have been widely used by international financial institutions as well as regulators in recent times. The idea behind these stress tests is to assess the impact of exceptional but plausible events on the prudential and financial position of the banks and financial entities. For this purpose, a set of quantitative techniques which can be broadly divided into two categories, has been developed: sensitivity tests and scenario tests.

A- Sensitivity Analysis (single factor tests) measures the change in the financial position of the financial entity due to exceptional but plausible shocks in individual risk factors. For example, the shock might be the adverse

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314 Refer to circular no. (7/2010) dated 24/12/2010 and circular no. (97/2009) dated 3/12/2009 on nomination of credit officers at banks to take part in the survey and provide the nominee name, title, mobile, and email.
movement of interest rate by certain basis points or a sharp and sudden increase in non-performing loans.

B- Scenario Analysis covers the situation where a shock in one risk factor affects a number of other risk factors or there is a simultaneous adverse change in a group of risk factors. For example, a decline in GDP could lead to liquidity problems in banks, and could later be manifest in credit risk as well.

Second: Consequently, and pursuant to Law No. 13/2012 on Qatar Central Bank and regulation of financial institutions, the following has been decided:

1- All banks should conduct stress tests on credit facilities, deposit accounts, investments, and inter-bank exposures and off-balance sheet items.
2- Since stress tests can be based on historical scenarios, banks should create a database of previous information in the form of time series. In the event where the previous information is not sufficient, banks may conduct these tests based on hypothetical scenarios.
3- Banks are encouraged to carry out stress testing based on their own assumptions, as long as they can demonstrate the robustness of their assumptions. Otherwise, banks may carry out the stress tests based on the scenarios defined in Annex (1). Below is a clarification of the methodology for conducting the stress test:

3/1 Credit risk stress tests:

- Credit risk stress tests measure the impact arising from the impairment of the borrowers’ creditworthiness under stress conditions. The impact can be measured on the financial position of the banks such as a decline in the capital level (i.e., regulatory capital to risk-weighted assets) or in profitability (both the absolute amount as well as the ratio of profit to total asset) of the banks or both capital level and profitability.
- Credit risk stress tests can be conducted by stressing the bank’s exposure to real estate portfolio (residential and commercial), unsecured lending portfolio (including contracting) as well as interbank exposures and off-balance sheet exposures, etc.
- Various stress conditions can also be applied by classifying the loan book into corporate loans (private and public separately), small and
medium enterprise loans, retail loans, consumption loans, other loans, etc.

- The risk factors for credit risk include an increase in NPLs (by a certain percentage), a lowering in the quality of existing NPLs (e.g., migration of loans from sub-standard to doubtful), increase in the level of provisioning, etc.

3/2 Liquidity risk stress tests:

- Banks face stress on liquidity mainly on account of over dependence on volatile funding sources such as wholesale funding and interbank exposures, sudden deposit withdrawals by depositors and unforeseen huge drawdown of committed credit lines, etc.

- The impact of liquidity stress tests can be calibrated as the amount of additional liquidity required to meet the obligations under a stress scenario. The impact can also be calibrated by estimating the loss to the bank on account of asset sales to meet the liquidity requirements, as well as the increase in interest cost to wholesale depositors so as to meet the sudden deposit withdrawals.

- Various stress conditions can be applied by classifying the funding sources into government deposits, wholesale deposits (private and public), retail deposits etc and by classifying the funding sources according to maturity.

3/3 Market risk stress tests:

- In general, the exposure of the financial position of banks to adverse movements in interest rate, exchange rate and equity markets can be broadly considered as market risks.

- As in the case of credit risks, the impact of these risks have to be calibrated into decline in the level of capital or to the level of profitability of the banking institution.

- Interest rate risks include a sharp and sudden change in interest rate, which can be measured by the impact on Earnings at Risk (EAR)\textsuperscript{316}.

- For exchange rate risks, an assumption of the local currency to depreciate/appreciate by a certain percentage can be made (against

\textsuperscript{316} Earnings at Risk (EAR) provides a short-term (usually up to 1 year) view of interest rate risk and measures the extent by which net income might change in case of an adverse movement in interest rates.
major currencies such as USD / EURO / JPY / GBP / RMB / KRW / SGD / AED / SAR and accordingly estimate the impact on the net open positions of the banks in major currencies.

- A decline by a certain percentage in the market value of the instruments in the trading and investment book of the bank can be assumed for equity price risks.

4- A suggested set of sensitivity parameters as well as scenarios for stress tests is provided in Annex (1). These parameters for conducting stress tests are only in the nature of a minimum requirement. Banks have the flexibility to take into account more stringent parameters based on their risk appetite, customer orientation and business profile.

5- While Islamic banks can adopt the methodologies for stress tests as described above, they are advised to fine-tune their methodologies, taking into consideration the specific nature of their banking business and the attendant risks.

Islamic banks should particularly take into account, among other things, the following:

- They are exposed, in addition to the risks encountered by commercial banks, to other risks of their own, such as rate of return risks, displaced commercial risks and reputational risks; and therefore, the stress testing methodology applied on these banks differs from the one applied on conventional banks. Stress testing on Islamic banks should cover specific elements, including but not limited to the following:
  A- Finance components including investment account holders.
  B- Credit risk factors and the effectiveness of risk mitigation techniques consistent with the provisions of the Islamic Sharia.
  C- Market risks involving securitization processes (Taskeek) consistent with the provisions of the law.
  D- Specific portfolios covering for instance credit to customers such as customer financing by Murabaha and Ijara), real estate mortgage financing portfolios (through Murabaha, lease agreement [Ijara], and diminishing ownership agreement

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317 The list of currencies is only illustrative. In case a bank has major exposure in any other currency, it will need to take it into account while conducting exchange rate risk stress test.
[Musharaka]), Murabaha transactions in goods, investment in capitals (i.e. investment by Mudaraba and Musharaka), etc.

E- Sharia non-compliance risks that lead to reputational risks and relevant legal risks.

F- Exposure to off-financial position risks.

- Since financing in Islamic banks may be carried out through unrestricted investment account holders or through Murabaha transactions in goods based on short-term deposits with maturities less than the Murabaha assets, these banks may be exposed to the rate of return risks (in addition to the liquidity risks resulting from maturity mismatch when using existing deposits on Murabaha transactions in goods); and therefore, rate of return risks and liquidity risks should be covered through stress testing techniques.

- Stress tests should take into account the distinction between unrestricted investment account holders and restricted investment account holders, both on or off-financial position.

- Stress testing should evaluate the following aspects relating to investment account holders:
  
  A- The potential payment of dividends to investment account holders upon maturity under normal conditions and under specific conditions affecting liquidity.
  
  B- Displaced commercial risks and Islamic banks' ability to maintain a competitive rate of return for unrestricted investment account holders.
  
  C- Risks of withdrawal of funds by investment account holders.
  
  D- Effects of unrestricted investment account holders funds on Islamic banks’ liquidity and financial solvency.

- In view of certain restrictions on recovery mechanisms under Islamic transactions contracts such as Murabaha, Mudaraba, Musharaka and Ijara, Islamic banks should also include the following factors in their credit risk stress testing:
  
  A- Decline in domestic economic activity.
  
  B- Degradation in the assessment of the counter-parties in the various Islamic financial transactions contracts.
C- Execution on acceptable collaterals.
D- Early settlements available.
E- Exposure to risks associated with certain transactions such as Istisna’ and Salam.
F- Policies determining and allocating provisions for bad debts.
G- Assumptions of default due to lack in cash flows.
H- Potential legal risks in case of default in relation with cross-border transactions.

- The distinctive nature of the risks relating to Musharaka and Mudaraba contracts, which constitute a form of contribution to the investment, may expose Islamic banks to different types of risks (such as counterparty credit risks, market risks, liquidity risks, reputational risk, etc.). Therefore, stress tests should comprise scenarios, which enable continuous assessment of the nature of these risks and their implications on the shareholders’ equity, in addition to the estimation of the losses, the determination of the precautionary level of provisions for exposures to Musharaka and Mudaraba contracts.

- Islamic banks should determine and include in the stress tests any shortage of liquidity in the future by preparing forecasts of future cash flows arising from the various assets and liabilities positions, including:
  a- Cash flows related to Murabaha transactions in asset-based goods, Ijara, Ijara sukuk, diminishing ownership (Musharaka) on the asset side, and Murabaha transactions in goods on the liability side.
  b- Cash flows that can be predictable (i.e. account receivable for Salam and Istisna’ contracts).
  c- Cash flows that cannot be predictable (Musharaka and Mudaraba investments on the asset side, and unrestricted investment account holders on the liability side).

- It is essential to carry out stress tests for non-compliance with the provisions of the Islamic Sharia in order to identify and measure:
  a- How can non-compliance with the provisions of the Sharia affect certain types of contracts, and may lead for instance to: financing risks, income and profitability risks, withdrawal risks, legal risks. b- Size of resulting cost. The following potential risk factors should be included: contract documents that do not conform with the provisions of the
Islamic Sharia, breach of contracts, which contain irregularities, possible disagreement of the fatwas issued by Sharia scholars on certain products, different fatwas on some products in different countries.

- Build on the guidelines issued by the Islamic Financial Services Board with regard to stress testing.

Third: Qatar Central Bank recommends banks to utilize the stress tests results to achieve the following objectives:

- Strengthen the process of identifying and controlling risks.
- Provide tools to complement other risk management tools (such as value-at-risk) in order to reach a comprehensive assessment of risks.
- Enable the bank to identify the vulnerabilities in its operations.
- Enable the bank to better manage its capital and liquidity.
- Develop contingency plans to deal with the different risks.
- Ensure that the bank has an acceptable level of capital, consistent with its strategy and risk structure.

Fourth: In order to activate the process of stress testing, banks should:

- Have written policies and procedures and clear responsibilities and ensure the integrity of the data and information management system.
- Allocate adequate resources to implement the stress testing program.
- Have appropriate documentation of the program.

Fifth: In order to effectively conduct the stress tests, it would be advisable to have a stress tests governance framework in place. Accordingly, the Board or the risk management committee responsible for stress tests oversight should approve the framework regarding the stress tests, which addresses the processes, structure and methodology to ensure that the relevant risk factors are appropriately identified and the responsibilities are defined. The findings of the stress tests may be put up to the Board for advice and further guidance. The results of the stress tests should be communicated in a clear, concise and comprehensive format to the Board/committee responsible for the stress tests governance in the banks.

Sixth: As part of the regular surveillance process, QCB will evaluate the banks’ stress tests framework for the appropriateness of methodology, prudential and governance arrangements. Accordingly, banks are advised to forward their Board/ risk
management committee approved stress tests framework, including comments, if any, on these stress tests made by the Board, and the documentation relating to the governance arrangements, to the Financial Stability and Statistics Department at QCB on or before end-June 2013.

Seventh: The results of the stress tests, including observations if any, and approved by the Board/committee responsible for the stress test should be submitted to the Financial Stability and Statistics Department, Qatar Central Bank, on a half-yearly basis, beginning end-June 2013. These stress tests should be submitted no later than 45 days from the completion of the month. Although banks have the flexibility to conduct the stress tests at any periodicity they deem appropriate, for purposes of regulatory oversight, the findings of the stress tests should be based on data for the half-year ending June and half-year ending December, respectively.

Eighth: Depending on the evolving economic situation, Qatar Central Bank may require the banks to conduct stress tests based on specified scenarios and to submit the results in addition to the regular stress tests.
Annex (1): Scenarios for stress tests

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of stress</th>
<th>Magnitude of stress</th>
<th>Outcome variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Credit risk*</td>
<td>Increase in non-performing direct credit facilities by 100% and 200%, respectively</td>
<td>Capital position (=Regulatory capital to risk-weighted assets) before and after stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-20% of performing direct and indirect credit facilities become non-performing</td>
<td>Return on Asset (After-tax income/Total asset) before and after stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase in non-performing direct credit facilities by 100-200% along with an increase in non-performing indirect credit facilities by 50-100%</td>
<td>Change in profits [(Profits before the stress – Profits after the stress)/(Profits before the stress)]</td>
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<tr>
<td></td>
<td></td>
<td>Increase in non-performing direct credit facilities in real estate and consumption loans by 100% each</td>
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<td></td>
<td></td>
<td>A certain percentage of performing loans to each economic sector becomes non-performing. Assume that this percentage is 25% each for real estate and consumption loans, 15% for loans to contracting, 10% for services sector and 5% for all other sectors (excluding public sector)</td>
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<td></td>
<td></td>
<td>The direct credit facilities granted to the top 5/10 private borrowers becomes non-performing</td>
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</table>

* Assume provisions to be a minimum of 75% on the additional NPL on account of the assumed stress. The definitions of “Direct” and “Indirect” credit facilities are as provided by QCB in the Instructions to Banks.
<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Additional Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part (X) – Financial Stability and Statistics</td>
<td>30-50% decrease in the ratio of the value of the loans to the real estate sector</td>
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<td></td>
<td>20-30% of consumption credit granted to residents become non-performing</td>
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<tr>
<td></td>
<td>Withdrawal of 15-30% of private sector deposits</td>
<td>Liquid assets/Total assets, where Liquid assets=(Cash + Required reserves + Other dues from QCB)</td>
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<td></td>
<td>Withdrawal of 15-30% of private sector deposits along with asset sale by banks (with suitable “haircuts”) to meet the withdrawal pressures</td>
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<tr>
<td></td>
<td>Differential withdrawal of deposits: current and call deposits at 50-75%, savings deposits at 25-30% and time deposits at 10-20% along with asset sale by banks (with suitable “haircuts”) to meet the withdrawal pressures</td>
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</tr>
<tr>
<td></td>
<td>The deposits of top 5/10 corporate depositors are withdrawn and the bank has to sell assets to meet the unforeseen liquidity demand</td>
<td>Additional liquidity required to overcome the shock</td>
</tr>
<tr>
<td></td>
<td>The deposits of top 5/10 retail depositors are withdrawn and the bank has to sell assets to meet the unforeseen liquidity demand</td>
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<td>Loss of the largest 3/5 of its deposits at local/foreign banks</td>
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<td></td>
<td>25-50% of the short-term funds (defined as total of deposits, placements and borrowings) up to one month including</td>
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### Part (X) – Financial Stability and Statistics

<table>
<thead>
<tr>
<th>3</th>
<th>Market risks</th>
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<tbody>
<tr>
<td><strong>Exchange rate</strong></td>
<td>Revaluation/devaluation of Qatari Riyal by 5-20% against all currencies</td>
<td>Capital position</td>
</tr>
<tr>
<td><strong>Equity market</strong></td>
<td>Decline in the value of bank’s trading portfolio by 50-75%</td>
<td>Return on Asset</td>
</tr>
<tr>
<td><strong>Interest Rate</strong></td>
<td>Change in interest rates by 100, 200 and 300 basis points, respectively</td>
<td>Return on Asset</td>
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<tr>
<td></td>
<td>Net interest margin (NIM) = [(Interest income – Interest expense)/Total asset]</td>
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