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NON-PERFORMING LOANS AND BANK EFFICIENCY OF CONVENTIONAL AND ISLAMIC BANKS IN OIC COUNTRIES

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ABSTRACT

NON-PERFORMING LOANS AND BANK EFFICIENCY

OF CONVENTIONAL AND ISLAMIC BANKS IN OIC

COUNTRIES

By

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Banks are important sources of financing in most developing countries as other sources of financing (i.e stocks and bond markets) are relatively less developed to cater for the financing required for economic growth. For example, if we were to look into the GCC (the cooperation council for the Arab States of the Gulf) countries: Bahrain, Kuwait, Oman, Saudi Arabia, and United Arab Emirates) the amount of domestic credit provided by banking sector (% of Gross Domestic Product) ranges from 36 to 88 percent in the periods from 1995 to 2005 (WDI, World Bank). This is common among most developing countries globally where banks play a dominant role (more than 70% of the financing on average) in the

financial system. This applies to both the conventional banks and the Islamic banking sector that is growing competitively in these countries. Therefore, to discharge their responsibilities effectively, the banking sector must be cost, profit and revenue efficient. Furthermore it has to have an effective mechanism to avoid adverse selection and minimize the amount of non-performing loans (NPL) for the conventional banks and nonperforming financing (NPF) for the Islamic banks. This will consequently help the banking sector to perform better and contribute towards the nation's economic growth.

This thesis addresses the issue of the relationship between efficiency and NPL/NPF of conventional and Islamic banks and the determinants of the NPL and NPF. Despite the numerous evidences documented so far mainly on the efficiency of conventional banks, there is no comprehensive evidence on the inter-temporal relationships between efficiencies and NPL/NPF of conventional and Islamic banks in OIC countries.

The Data Envelopment Analysis (DEA) approach is used to measure cost, revenue and profit efficiencies of conventional and Islamic banks for the period of 1993 – 2007 for OIC countries (denoted as Middle-East region and Turkey in this study), the Asian, and African.

Overall, the results on efficiencies show that cost efficiency of conventional banks outperform their Islamic banking counterparts for the regions selected: Asian, African, Middle East and Turkey. However, no significant differences were observed for profit efficiency of Islamic banks and profit efficiency of conventional banks in the Asian and the Middle East region and Turkey. The efficiency time lines show that the cost efficiency behavior is more stable over the sample period in the different regions and years and dominates the revenue and profit efficiency. Alongside, the efficiency time lines show that the financial crisis in 1997-1998 had affected both the conventional and Islamic banks. Overall, both banking streams have an opportunity to further improve their cost, revenue and profit efficiency. An analysis on the determinants of cost, revenue and profit efficiencies revealed that the cost efficiency of both banking streams in all regions is more affected by the internal determinants (bank-specific variables) than the external factors (macroeconomic variables). This is due to the fact that cost is under the control of the management and they have the prerogative to manage cost in the best way possible.

The revenue efficiency of conventional banks and Islamic banks for total sample is affected by internal variables. However, revenue efficiency of conventional banks is more sensitive to external variables compared to their Islamic banks counterparts. The profit efficiency of conventional banks is more affected by internal variables compared to external variables compared to profit efficiency of Islamic banks in the total sample.

The results on the determinants of NPL/NPF of conventional and Islamic banks support the view that both bank-specific and macroeconomic variables determine the level of NPL/NPF of conventional and Islamic banks. Therefore, investors could use these findings to examine the assets quality of banks and the Central Bank could use this information to develop a framework for measuring and assessing assets quality – an important element of study on financial stability. The management of banks should pay attention to some factors that have significant relationships with

NPL/NPF for conventional and Islamic banks when providing loans/ financing in order to control the level of impaired loans/financing.

The test results on the inter-temporal relation between bank efficiency (cost and profit), capital and problem loans/financing, as proposed by Berger and DeYoung (1997) support the "bad management" hypothesis for all regions for both conventional and Islamic banks, except for Asian region. This finding indicates that the internal management problem tend to precede the problem loans/financing. The result rejects the 'bad luck' hypothesis for conventional banks in all regions. However, the result supports 'bad luck' hypothesis for Islamic banks in Asian region and Middle East region and Turkey. This finding implies an increase in NPF precedes the decrease in cost efficiency of Islamic banks, problem financing of Islamic banks may be driven by uncontrollable external or exogenous factors. The 'skimping' behavior also supported by the findings for all regions for both Islamic and conventional banks except for both stream of banks in the African region.

The findings also support the 'moral hazard' hypothesis for both the conventional and Islamic banks in all regions except Africa. This implies that there is a possibility that the incidence of high volume of problem loan/financing in these regions is not involuntary but rather the management trade-off decision between short-term operating costs and long-run profitability. The management might rationally decide to reduce short-term expenses by skimping resources allocated to loan origination and monitoring.

ABSTRAK

PINJAMAN TIDAK BERBAYAR DAN KECEKAPAN DARI BANK KONVENSIONAL DAN ISLAM DI NEGARA- NEGARA OIC

Oleh

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April 2012

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Bank adalah sumber penting pembiayaan di kebanyakan negara-negara membangun, karena sumber pembiayaan lain (iatu stok dan pasaran bon) yang agak kurang dikembangkan bagi memenuhi pembiayaan yang diperlukan untuk pembangunan ekonomi. Sebagai contoh, jika kita melihat di negara-negara GCC (dewan kerja sama negara-negara Arab Teluk: Bahrain, Kuwait, Oman, Arab Saudi, dan Uni Arab Emirates) jumlah kredit domestik sahaja yang disediakan oleh sektor perbankan (% Dari Produk Domestik Kasar) berkisar antara 36-88 peratus pada tempoh tahun 1995 hingga tahun 2005 (WDI, Bank Dunia). Ini adalah biasa di kalangan kebanyakan negara membangun di seluruh dunia di mana perbankan memainkan peranan yang dominan (secara purata lebih dari 70% dari total pembiayaan) dalam sistem kewangan. Ini terpakai kepada kedua-dua bank konvensional maupun Islam yang semakin berkembang kompetitif di negara-negara ini. Oleh kerana itu, untuk menunaikan tanggung jawab mereka secara berkesan, sektor perbankan mestilah

kos, keuntungan dan pendapatan yang cekap. Selain itu ia perlu mempunyai satu mekanisme yang berkesan untuk mengelakkan pemilihan buruk dan meminimumkan pinjaman tidak berbayar (NPL) bagi bank konvensional dan pembiayaran tidak berbayar (NPF) bagi bank Islam. Ini akan membantu sektor perbankan guna melaksanakan yang lebih baik dan menyumbang ke arah pertumbuhan ekonomi negara.

Tesis ini menangani isu hubungan antara kecekapan dan Pinjaman tidak berbayar/ pembiayaan tidak berbayar dari bank konvensional dan Islam. Walaupun terdapat banyak bukti yang didokumenkan setakat ini terutamanya pada kecekapan bank konvensional, tetapi tidak ada bukti menyeluruh mengenai hubungan antara kecekapan dan pinjaman yang tidak berbayar maupun pembiayaan yang mendatangkan masalah di bank konvensional dan Islam di negara-negara OIC.
Pendekatan Data Envelopment Analysis (DEA) yang digunakan untuk mengukur kecekapan kos, pendapatan dan keuntungan bank konvensional dan bank Islam selama tempoh 1993 – 2007 untuk negara-negara OIC (ditandakan sebagai kawasanTimur Tengah dan Turki dalam kajian ini), Asia dan Africa.

Secara keseluruhannya, keputusan pada kecekapan menunjukkan bahawa kecekapan kos bank konvensional mengungguli berbanding rakan bank-bank Islam bagi kawasan yang dipilih: Asia, Afrika, Timur Tengah dan Turki. Bagaimanapun, tiada perbezaan yang signifikan telah diperhatikan untuk kecekapan keuntungan bank-bank Islam dan kecekapan keuntungan bank-bank konventional di kawasan Asia, dan Timur Tengah dan Turki. Garis kecekapan waktu menunjukkan bahawa tingkah laku kecekapan kos lebih stabil sepanjang tempoh sampel di kawasan yang berbeza tahun dan mengunggguli kecekapan hasil dan keuntungan. Bersama-sama, garis kecekapan waktu menunjukkan bahawa krisis kewangan pada 1997-1998 telah memberi kesan kepada kedua-dua bank konvensional dan Islam. Secara keseluruhan, kedua-dua arus perbankan mempunyai peluang untuk meningkatkan lagi kecekapan kos, pendapatan dan keuntungan mereka.

Analisis penentu kecekapan kos, pendapatan dan keuntungan mendedahkan bahawa kecekapan kos kedua-dua aliran perbankan di semua kawasan lebih dipengaruhi oleh penentu dalaman (pembolehubah khusus bank) daripada faktor-faktor luaran (pembolehubah ekonomi makro). Ini adalah disebabkan oleh hakikat bahawa kos adalah di bawah kawalan pihak pengurusan dan mereka mempunyai prerogratif untuk menguruskan dengan cara yang terbaik.

Kecekapan pendapatan bank konvensional dan bank Islam bagi total sampel dipengaruhi oleh pembolehubah dalaman. Bagaimanapun, kecekapan perolehan bank konvensional adalah lebih sensitif kepada pembolehubah luaran berbanding dengan rakan bank Islam mereka. Kecekapan keuntungan bank konvensional lebih dipengaruhi oleh pembolehubah dalaman berbanding pembolehubah luaran dan berbanding kecekapan keuntungan bank Islam dalam total sampel.

Keputusan atas penentu NPL/NPF bank konvensional dan Islam menyokong pendapat bahawa kedua-dua pembolehubah khusus bank dan ekonomi makro menentukan tahap NPL/NPF bank konvensional dan Islam. Oleh kerana itu, pelabur boleh menggunakan penemuan ini untuk memeriksa kualiti aset bank dan Bank Negara boleh menggunakan maklumat ini untuk membangunkan satu rangka kerja bagi mengukur dan menilai kualit aset – elemen penting dalam kajian mengenai kestabilan kewangan. Pengurusan bank harus memberi perhatian kepada beberapa faktor yang mempunyai hubungan yang signifikan dengan NPL/NPF untuk bank-bank konvensional dan Islam apabila menyediakan pinjaman/pembiayaan untuk mengawal tahap pinjaman/pembiayaan tidak berbayar.

Keputusan atas inter-temporal antara kecekapan bank (kos dan keuntungan), modal dan masalah pinjaman/pembiayaan, seperti dicadangkan oleh Berger dan DeYoung (1997) menyokong hipotesis “pengurusan yang lemah” untuk semua kawasan bagi kedua-dua bank konvensional dan Islam, kecuali untuk kawasan Asia. Penemuan ini menunjukkan bahawa masalah pengurusan dalaman cenderung untuk mendahului masalah pinjaman/pembiayaan. Keputusan menolak hipotesis ‘nasib buruk’ untuk bank-bank konvensional di semua kawasan. Namun, keputusan juga menyokong hipotesis ‘nasib buruk’ untuk bank-bank Islam di kawasan Asia dan kawasan Timur Tengah dan Turki. Kajian ini juga menunjukkan peningkatan dalam NPF mendahului penurunan dalam kecekapan kos bank Islam, masalah pembiayaan bank Islam boleh jadi didorong oleh faktor luaran atau luaran yang tidak terkawal. Tingkah laku yang ‘skimping’ juga disokong oleh penemuan untuk semua kawasan bagi kedua-dua bank Islam dan konvensional kecuali bagi aliran kedua-dua bank di kawasan Afrika. Hasil kajian juga menyokong hipotesis ‘bahaya moral’ bagi kedua-dua bank konvensional dan Islam di semua kawasan kecuali Africa. Penemuan ini menunjukkan bahawa ada kemungkinan berlakunya peningkatan masalah pinjaman/pembiayaan di kawasan ini bukan kesukarelaan, tetapi sebaliknya keputusan pengurusan yang kurang wajar (trade off) antara kos operasi jangka pendek dan keuntungan jangka panjang. Pengurusan rasional mungkin memutuskan untuk mengurangi perbelanjaan jangka pendek dengan melakukan‘skimping’ atas sumber-sumber yang diperuntukkan kepada asal pinjaman dan pemantauan.

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APPROVAL

I certify that an Examination Committee met on 09 December 2011 to conduct the final examination of Chandra Setiawan on his thesis entitled “Non-performing Loans and Bank Efficiency of Conventional and Islamic Banks in OIC Countries” in accordance with Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the candidate be awarded the Doctor of Philosophy.

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for another degree at UPM or any other institutions.

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This thesis is submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the Degree of Doctor of Philosophy. The members of Supervisory Committee are as follows:

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