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ORIGINAL LITERARY WORK DECLARATION

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BANK CAPITAL BUFFER, LEVERAGE RATIO AND PORTFOLIO RISK-RETURN DECISIONS: EVIDENCE FROM MALAYSIA AND INDONESIA

Field of Study: **FINANCE AND BANKING**

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Abstracts

Suboptimal decisions on capital and risk return mixes at banks and corporations in pre-crisis East Asia were blamed more for the 1997/1998 banking and financial crisis. This study investigates, (after a decade of regulatory reforms), how bank managers, in post-crisis East Asia, make short term capital and portfolio risk and return decisions, and how decision on capital affects risk and return and vice-versa; after the imposition of high capital requirements in Malaysia and Indonesia.

A simultaneous equation model with partial adjustment framework was applied to analyze annual financial data of sample commercial banks from Indonesia and Malaysia covering a period of 8 years (2000-2007).The system equations were estimated using Full-information Three Stage-least square (3SLS) method. Bank managers' simultaneous decision on target capital buffer to maintain above the regulatory minimum or their target Leverage ratio were modeled each, separately, with managers decisions on target portfolio risk/target portfolio return for the full sample as well as for another two subsamples. The study estimates and tests the significance of two groups of parameters: coefficients for adjustment speed to target capital, portfolio risk and return (ROE), and coefficients indicating the impact of changes in capital ratios on changes in assets portfolio risk or assets portfolio return (ROE) and vice-versa in scale and direction while controlling for other factors.

For capital and risk decision models, full sample models results show that Indonesian banks adjust target capital ratios at speeds faster than the speed at which they adjust target assets portfolio risk (risk-weighted asset ratio), while Malaysian banks do the opposites. The relationship between change in capital and change in assets portfolio risk is, in general, positive and mainly significant in the cases of both countries. This indicates that pure moral hazard was absent in bank managers' short-term capital and risk decisions during the study periods. Possible explicators for these managerial capital and risk decisions could be bank managers' private incentives, bankruptcy cost avoidance or regulators effect. Analyses on subsamples revealed important characteristic differences between the restructuring/recovery periods of 2000-2003 and the more financially stable periods of 2004-2007; it further highlighted differences between the two countries' banks regarding capital structure decisions. Evidences on regulatory pressure on banks via differential impact test for capital buffer level on managers' capital and portfolio risk decisions are mixed for Indonesia; likely due to regulatory forbearance; and weak in Malaysia perhaps due to high capital levels.

For capital and portfolio return decision models, full sample model results show that both Indonesian and Malaysian banks adjust target portfolio ROE at speeds faster than the speed at which they adjust target capital ratios. Based on model significance levels cases, decisions on capital buffer and portfolio ROE management are more important in Malaysian banks capital structure policy, while decision on total leverage and portfolio ROE dominates Indonesian banks capital structure decisions. Subsample analysis has, somewhat, substantiated this conjecture. A finding of positive relationship between a change in bank capital ratios and a change in bank portfolio return measure (ROE) has its precedence in literature. The finding may be explained by signaling or bankruptcy cost hypotheses. Implications and limitations of the study are highlighted at the conclusion.

Abstrak

Keputusan suboptimal modal dan risiko pulangan campuran di bank-bank dan syarikat-syarikat dalam pra -krisis Asia Timur dipercayai sebab utama berlakunya krisis kewangan di Asia Timur pada tahun 1997/1998. Tesis ini menyiasat bagaimana pengurus bank membuat keputusan berkaitan dengan modal jangka pendek dan risko pulangan portfolio dan bagaimana ianya memberi kesan kepada modal risiko dan pulangan dan sebaliknya.

Satu model persamaan serentak dengan rangka kerja penyelarasan separa telah digunakan untuk menganalisa data kewangan tahunan bank-bank perdagangan Indonesia dan Malaysia yang meliputi tempoh 8 tahun (2000-2007). Tesis ini menggunakan kaedah “3SLS” dan menguji kepentingan pekali bagi kelajuan pelarasan modal sasaran, risiko portfolio dan pulangan (ROE). Pekali yang menunjukkan kesan perubahan dalam nisbah modal ke atas perubahan dalam aset risiko portfolio atau aset pulangan portfolio (ROE) dan sebaliknya juga di perolehi sambil mengawal faktor-faktor lain yang mempengaruhi nisbah modal bank..

Untuk modal dan risiko model keputusan, keputusan regresi bagi sampel penuh menunjukkan bahawa bank-bank Indonesia menyesuaikan nisbah modal sasaran pada kelajuan yang lebih cepat daripada kelajuan di mana mereka menyesuaikan portfolio sasaran berwajaran risiko nisbah aset. Manakala bank-bank di Malaysia adalah sebaliknya. Hubungan antara perubahan dalam modal dan perubahan dalam risiko portfolio secara amnya positif dan penting bagi kedua-dua negara. Ini menunjukkan bahawa bahaya moral tulen tidak mempengaruhi keputusan modal jangka-pendek dan keputusan risiko yang dilakukan oleh pengurus bank dalam tempoh pengajian. Keputusan ke atas modal dan risiko bank yang di buat oleh pengurus bank boleh diterangkan oleh teori insentif, teori kos kebankrapan atau undang-undang. Tesis ini juga mendedahkan perbezaan diantara tempoh 2000-2003 dan tempoh 2004-2007 dimana ekonomi kedua-dua negara ini adalah lebih stabil. Keputusan struktur modal bagi kedua-dua negara ini didapati berbeza. Keputusan regresi untuk Indonesia tidak jelas manakala keputusan regresi untuk Malaysia adalah lemah.

Untuk portfolio modal dan pulangan model keputusan, keputusan penuh model sampel menunjukkan bahawa bank-bank Indonesia dan Malaysia menyesuaikan portfolio sasaran ROE pada kelajuan yang lebih cepat daripada kelajuan di mana yang mereka lakukan keatas menyesuaikan nisbah modal sasaran. Keputusan mengenai penampan modal dan pengurusan portfolio ROE adalah penting dalam dasar struktur modal bank-bank Malaysia; manakala keputusan mengenai jumlah pinjaman dan portfolio ROE menguasai bank-bank Indonesia. Penemuan hubungan positif antara perubahan dalam nisbah modal bank dan perubahan dalam portfolio bank ukuran pulangan (ROE) mempunyai keutamaan dalam artikel-artikel perbankanan. Hubungan ini boleh dijelaskan oleh hipotesis isyarat atau hipotesis kos kebankrapan. Implikasi dan batasan kajian diterangkan dalam bab kesimpulan.

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Ahmad Kemo Touray
August 29, 2013

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LIST OF ABBREVIATIONS/ACRONYMS AND SYMBOLS

ADB: Asian Development Bank

AEM: Asia Economic Monitor (Magazine)

BI: Bank Indonesia

BNM: Bank Negara Malaysia

BSMD: Bank Share of Market deposit

CBF: Capital Buffer

ΔCBF: Change in capital buffer

Danaharta or Pengurusan Danaharta Nasional Berhad is a national distress asset management company in Malaysia

Danamodal: is the Malay name of the national bank recapitalization agency in Malaysia

IBRA: Indonesian Bank Restructuring Agency

LLPTA: Loan loss provision to total loans

LTA: Log of total asset (Natural log)

LVR Leverage ratio the ratio of equity capital to total asset (Equity/Total asset)

PDIM: : in Bahasa Malaysia:Perbadanan Insurans Deposit Malaysia: it refers to the Deposit insurance system established by the Government of Malaysia to protect depositors against the loss of their insured deposits placed with member institutions in the event the member institution fails.

OEA: Operating expenses over average asset

ROA: Return on asset

ΔROE: Change in ROE of the first difference of ROE

ΔLVR: Change in LVR of the first difference of LVR

BIS: Bank for International Settlement