The basel capital requirements on bank behaviour finance essay

Finance

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\n[/toc]\n \nIn every country there is banking regulation. It is pertinent for both the financial system and the economy. A bank regulatory tool such as capital requirements has been observed to be efficient to stabilise the financial system. In fact, capital plays an essential role in a bank's long-term financing, acts as a protector against insolvency and increases public credibility. Lack of capital may give rise to negative externalities that may have several repercussions on the financial system and the economy, authenticating the pertinence of capital regulation. The substance of capital in corporate and banking sectors has its pedigree after Miller and Modigliani who illustrate that the value of a firm is independent of its capital structure, with the assumptions of perfect capital markets. Following the failure of German Herstatt bank in 1974 and subsequent negotiations, the first Capital Accord came into effect in 1988 and many countries adopted it. Mauritius adopted it in 1994. Despite the several outstanding opinions with respect to the Basel Accord, qualms are there pertaining to whether it is able to help allocate and distribute resources effectively in several countries. Various theories and literature point to the fact that capital requirements does have an impact on bank’s behaviour. Yet, as banks in developing countries play a more important role, eyebrows are raised as to whether capital requirements have an impact on banks’ behaviour. Analysing the impact of the Basel Capital Requirements on Bank Behaviour in Mauritius would be of utmost interest given that the financial sector in Mauritius is dominated by banks. Also, all studies conducted have been using econometrics and the present study will be the first one to employ primary data analysis to capture some important factors in the transmission of the effects of capital requirements that are not captured by econometrics. I personally want to do this dissertation as I think of embracing a career in the banking sector very soon. Also, I have always followed up on issues pertaining to basel implementation around the world and their potential impacts. Also, given my experience in dealing with banks, it would be of utmost interest to me to try to investigate the impact of basel capital requirements on the Mauritian banking firms.

Preliminary Review of the Literature.

Existing theories mention that the chief reason for regulating the banks’ capital is frequently explained in terms of " moral hazard" problem. The problem states that in the presence of a mis-priced deposit insurance scheme, bank managers may not do enough to reduce risk. According to Rime (2000), a first strand of literature uses the portfolio approach of where banks are treated as utility-maximizing units. Within such a framework adopted for mean-variance analysis to compare banks’ portfolio choice with and without a capital regulation. Koehn and Santomero (1980) showed that the introduction of higher leverage ratios will lead banks to shift their portfolio to riskier assets. Subsequently, Jackson et al(1999) extended the work of Koehn and Santomero and found that effectiveness of capital regulations depended on whether the banks were value maximizing or utility maximizing. In the former case, capital regulations could not prevent risk taking actions by banks. In the later case, capital regulations could only be effective if the weights used in the computations of the ratio are equal to the systematic risk of the assets. A further theoretical ground argued that banks chose portfolio with maximal risk and minimum diversification. The second strand of literature on the topic utilizes option models. Blum (1999) developed several models under this framework and showed that higher capital requirements reduce the incentives for a value-maximizing bank to increase asset risk, which is opposite to the conclusions of first generation studies as discussed previously. Using a two-period model, he showed if banks find it too costly to raise additional equity to meet new capital requirements tomorrow or are unable to do so, they will increase risk today. Subsequently, they showed that capital requirements directly reduced the probability of default and portfolio risk and suggested that optimal bank capital regulations could be made by incorporating state-contingent penalties based on bank's performance. At the same time, Rime (2000) found that capital requirements acted as a burden for inefficient banks when asset of banks is assumed to be fixed. However, such regulations increased the profitability of efficient banks

Empirical Review

Empirical literature using primary data is scant regarding the impact of Basel capital requirements. There has been no study conducted in Mauritius. However some of the empirical literature from various countries is given below: Bertrand Rime (2000) estimated an extended version of Shrieves’ and Dahl’s (1992) model to examine the Swiss banks’ capital and risk behaviour for the period 1989-1995. His main finding was that banks near to the minimum regulatory capital requirement had a tendency to raise their capital to risk weighted assets implying that regulatory pressure has the expected effect on banks’ behaviour. Hussain and Hassan(2005) assessed through a cross sectional study, the impact of the Basel risk based capital requirements on credit risk taking in 11 developing countries. They found a negative correlation between capital ratios and bank portfolio risk. In essence, capital regulation reduced the risk of the portfolio of the commercial banks, but did not increase capital ratios. Jackson et al. (1999) re-examined earlier studies examining the influence of capital regulation on actual capital ratios. Their finding was that in the short run, banks react mainly to stringent capital regulations by reducing their advances and there is small convincing indication that tight capital requirements has encouraged bank to keep higher capital to total assets ratios that they would if there were no regulation. Parinduri and Riyanto (2007) used data obtained from quarterly financial statements of 130 private domestic undercapitalised Indonesian banks from the second quarter of 2000 to the second quarter of 2005 to assess the impact of capital requirements on banks’ behaviour in Indonesia. They built a partial adjustment model developed by Shrieves and Dahl(1992) but departed from the literature and would not use simultaneous equations. Using dynamic panel data models, they found inconclusive results. Robert Mullings (2003) used quarterly data (first quarter of 1989 to first quarter of 2003) from a sample of 11 Jamaican commercial banks to assess the reaction of the banks to both leverage and risk based capital requirements. Using a dynamic panel data model, he concluded that capital requirements are notably taken into account by the banks in quest for maximising profits. However, with the imposition of the risk based capital requirements in 1999, banks shifted their assets away from high default risk assets to default free assets. In order to avoid regulatory penalties, Jamaican banks keep a high buffer on their risk based capital ratios while they gain when falling towards the leverage requirement. Nag and Das(2002) used data for 28 Indian public sector banks for the period 1996 to 2000 to assess the impact of capital requirements on the flow of credit in the banks. They provide an estimate using the Goldfeld and Quant's D-method for switching regression and concluded that in the period considered, there was a shift in the asset portfolio of the banks such that their capital requirements were reduced. They also averred that the implementation of more stringent risk management practices regarding bank lending and its interaction with minimum capital requirements had the effect of reducing overall supply of credit. Donsyah Yudistira (2003) used unbalanced (missing observations across time) monthly panel data from 1997 to 1999, during which there was the South East Asian Crisis and regulatory forbearance occurred. By choosing the Fixed Effects panel regression model, he concluded that capital requirements do have an impact on Indonesian banks; behaviour. It is found that bank lending fell, albeit at a lower rate than before the government put into practice forbearance in capital requirements. Their findings also include the fact the banks shrink their balance sheet activities. Based on the above empirical findings, it is noted that all studies have been conducted using econometrics and no studies have been conducted using primary data analysis. Primary data analysis captures all considerations or factors that econometrics does not capture, substantiating my choice of this topic.

Research Questions and Objectives.

Based on the research gaps found while reading the literature (as explained above), the research questions of the dissertation would be as follows: To what extent does basel capital requirements influence credit behaviour of banks? To what extent does basel capital requirements influence risk taking behaviour of banks? To what extent does basel capital requirements influence capital of banks? To what extent does basel capital requirements influence assets of banks? Based on the foregoing and taking into account the gaps in the literature, the research will employ primary data analysis to achieve the following objectives. To analyse the extent to which basel capital requirements influence credit behaviour of banks in Mauritius. To analyse the extent to which basel capital requirements influence risk taking behaviour of banks in Mauritius. To analyse the extent to which basel capital requirements influence capital of banks in Mauritius. To analyse the extent to which basel capital requirements influence assets of banks in Mauritius.

Research Plan.

In the research process, data is collected and analyzed after being systematically designed, in order to address the core issue. Research design refers to the strategy to integrate the difference components of the research project in a cohesive and coherent way. The research design structures the central research question. This framework specifies the type of information to be collected, the sources of data, the research approach, the research instrument, the sampling plan and contacts methods. Thus, Sources of data: Primary and secondary dataResearch approach: SurveyResearch instrument: Structured questionnaireContact method: Personal interviewTarget population: Credit Managers, Compliance Managers, Operations Managers of BanksTo gain a better view of the project, both primary and secondary data will been used. Primary data are collected exclusively to serve the purpose of the research. Data are collected through survey, observation, focus group and experiments. In this particular case, survey will be chosen as the most appropriate source of collecting primary data, due to its flexibility and speed. Secondary data involves the collection of historical data related to the issue in question. Secondary data was retrieved from books, financial magazines, journals and mainly from internet, which, nowadays, is an easy and quick source of collecting secondary data. From the data collected, the relevant ones were sorted out. For this particular research, the primary data collection method chosen is a ‘ Questionnaire Based Survey’ as it is the most popular means for collecting data. Moreover, the main reason for choosing questionnaire as the measuring instrument is due to the fact that since the sample is large and geographically concentrated, it is easier to distribute the questionnaires to the study population. The second data collection will be in the form of an informal interview. For this particular research, questionnaire was used as the main research instrument. Being the easiest and most flexible means of gathering information, nowadays, questionnaire is the most prominent means of gathering data. The questionnaire will be comprised of: Dichotomous questions where only two alternatives are listed, Multichotomous questions where more than two options are provided and respondents have to choose the one that most closely reflects their position on the subject. Likert Scale, that is, statement with which respondents shows the amount of agreement. A limited number of open-ended questions whereby respondents are given freedom to reply according to their opinions. While designing the questionnaire the following steps were adhered to: An evaluation of the information requiredChoose the most relevant questionnaire formatEnsure that the questions are clear, concise and explicitCareful thought on the type of question, its phrasing and orderReview the questionnaire to remove any confusing point and produce the final questionnaire. For the purpose of this research, data will be gathered from companies operating in the banking sector in Mauritius. The survey will be restricted to banks that existed from 1994 onwards. The list of the sample was taken from the Bank of Mauritius. In this particular survey, a random population of 21 was taken. This study will employ self-administered questionnaire in view of the geographical concentration of the respondents. The questions will be framed in simple English. Simple and careful wordings will be used to ensure clarity and avoid bias, careful sequence of questions and clear layout were adopted. Technical words will be allowed to some extent since the targeted audience are managers. The design techniques are adopted to increase both the response rate and validity of the responses. Hence, each question will be followed by a set of alternative answers to allow the respondents to select the answer that correspond most closely to their opinions; logically interrelated questions were randomly ordered so that any in consistency may be easily detectedLastly, some open questions will be included to allow the respondents to voice out what are their opinion. However, since most of the top management personnel are busy people they were not always available to fill in the questionnaire. The survey will be pre-tested by 3 respondents from the target population with the aim to establish the time taken by them to complete the survey, their ability to understand the survey layout, the wording of the questions as well as the level of interest in the study. All the selected banks will initially be contacted through telephone and e-mail, while a few were contacted personally in order to request the verbal commitment and approval of the intended recipient of the questionnaire. The questionnaire will be distributed via mail and some of them will be hand delivered to the organizational member who had given their consent on telephone to participate in the survey. Each mailed envelop contained a cover letter and a copy of the questionnaire. The cover letter outlines the purpose of the survey, the time limit to return the questionnaire as well as assuring the anonymity of responses

Limitations of the Survey.

The survey will be conducted for banks that existed as from 1994 onwards. At that time, the Mauritian banking sector was quite concentrated with few banks dominating the industry. Now the banking sector consists of 21 banks and the results that will be obtained might not be so reliable. Collection of data of the type used in this study will be time consuming. Some participants, despite being informed about the importance of them answering the questions in the questionnaire and the deadline date of return back the questionnaire, might take more time than expected to complete and return the questionnaire. This significantly delays results and discussions part of this study. A chief drawback that might be encountered will be the unwillingness of many banks to disclose information regarding the topic under study. Due to time constraints, many respondents will not bother to write their views and suggestions. This will lead to few answers in the open-ended sections intended for qualitative analysis.

Ethical Considerations.

The research is deemed to be a low risk and ethical based on the following grounds: The low risk ethical approval form will be completed before I start the dissertationParticipation information leaflet for interviews and questionnaires will be employed in addition to a consent form for interviews. The questionnaires and the interview questions will be approved by my supervisor before the research starts. The research will be conducted in such a way so as not to harm anybody, be it participants and researchers. Findings will be reported accurately and as fully as required to avoid misleading conclusions and the input of others will be acknowledged. Care will be taken with regards to the rights and integrity of subjects- they will have the rights to withdraw from the subjects. All data collected will be treated with high confidentiality as per the data protection act and shall not be used for other purposes other than the research. The latter will be communicated to potential respondents.