# Chapter 4

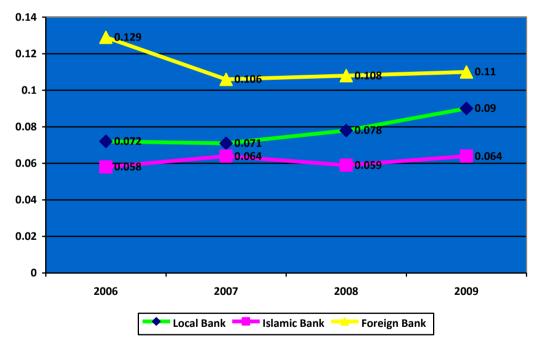
## **Empirical Results and Analysis**

# 4.1. Leverage Ratio

Leverage ratio is calculated as tier 1 capital divided by tangible assets. A higher mean of leverage ratio indicates better capital adequacy and a lower trend in standard deviation of leverage ratio indicates indicate lower risk of bank failures.

Figure 4.1.3

Mean Leverage Ratio



Source: Table II Appendix III

From the chart above, we observe that the leverage ratio mean for Foreign Conventional Banks is the highest followed by Local Conventional Bank and then by Islamic Banks during the period of study.

Foreign conventional banks experienced lowest mean in 2007 (10.6%) while mean for leverage ratio for Islamic Bank was highest in 2007 (6.4%) and 2009 (6.4%).

Local Conventional banks also experienced slight decline in mean from 7.2% (2006) to 7.1% (2007). The decline in mean in 2007 for local and foreign conventional banks was due to active market strategy to increase loan portfolio taking advantage of the improving economy and low Base Lending Rate and minus spread offered to strengthen loan base.\* Gross NPL also reduced from 2006 to 2009.\*\* Thus, capital adequacy was affected.

Local conventional banks also increased the leverage ratio from 7.1% in 2007 to 9% in 2009 by increasing capital to meet the minimum capital adequacy ratio required to be maintained by Bank Negara Malaysia.

Leverage ratio of Islamic banks increased from 5.8% in 2006 to 6.4% in 2008 gearing towards Basel II compliance in 2010. Most Islamic banks started operating as separate entity in 2006 and were in the infancy stage.

Thus, capitalization was low compared to local and foreign conventional bank.

Further, Foreign Conventional banks capitalization is high due to lower total asset composition. This may suggest that Foreign Conventional banks rely on fee based income instead of interest income from loans thus total assets are low.

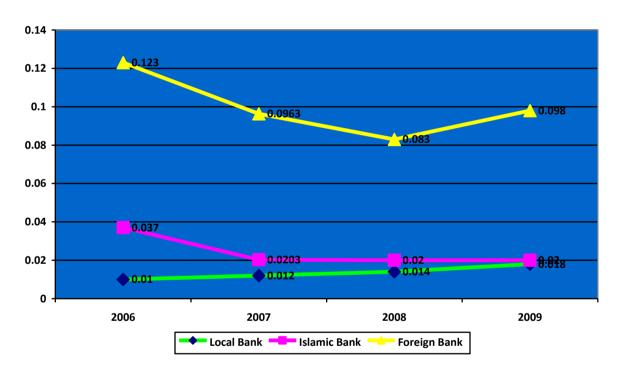
<sup>\*</sup>Source – Economic Report 2010 – Chapter 5 Chart 5.3

<sup>\*\*</sup> Source - Economic Report 2010 - Chapter 5 Chart 5.6

Based on the results, we can conclude that Foreign Conventional and Local Conventional Banks are more than adequately capitalized compared to Islamic Banks. This is probably due to a contrast in banking model whereby based on Islamic concept of risk sharing basis, the NPL load is borne by the depositors and not equity. Thus, Islamic Banks leverage ratio is considerably lower than local and foreign conventional banks.

Figure 4.1.4

Standard Deviation- Leverage Ratio



(Source: Table I- Table III Appendix III)

Standard deviation trend for leverage ratio for Islamic bank declined steadily from 3.7% (2006) to 2% (2009) implicating reduced volatility in capital leading to lower risk exposure to bank failure. Hence, the global financial crisis has minimum impact on Islamic Banks.

Foreign conventional banks standard deviation trend for leverage ratio declined steadily from 12.3% (2006) to 8.3% (2008) and thereafter leaped in 2009 to 9.8% reflecting increase in level of risk for bank failure in 2009 which could implicate impact of the global financial crisis creeping in.

Local Conventional Banks recorded a steady increase in standard deviation trend for leverage ratio from 1% in 2006 to 1.8% in 2009 indicating increase in level of risk for bank failure in 2009 which could implicate impact of the global financial crisis.

Nevertheless, Local Conventional, Foreign Conventional and Islamic Banks are far from being icons of bank failures in view that the mean and median of the three banking institutions hover around 6% - 8% close to minimum adequacy ratio of 8% which includes tier 1 and tier 2 capital as per Basel II requirement.

#### 4.2. Gross Revenue Ratio

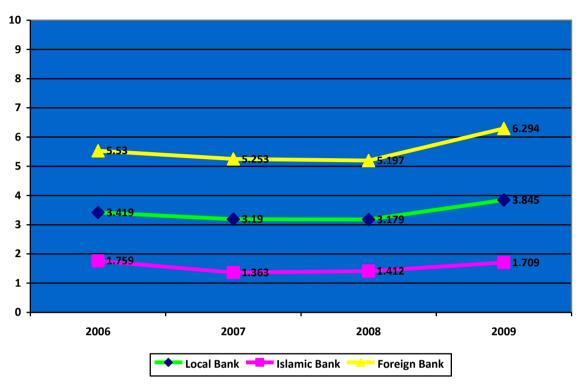
Gross Revenue Ratio is based on tier 1 capital and gross revenue.

Tier 1 capital is divided by total interest and non interest income before deducting expenses.

Declining gross revenue ratio could be a result of either declining tier 1 capital or an increasing amount of revenue for the banks.

Figure 4.2.1

Mean Gross revenue ratio

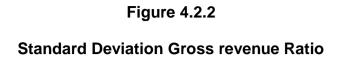


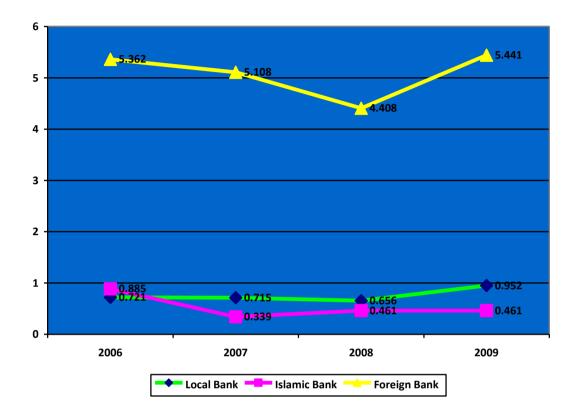
Source: Table IV - Table VI Appendix III

The chart above depicts decline in mean of gross revenue ratio for Foreign Conventional Banks from 5.53% in 2006 to 5.2% in 2008 and steep rebound to 6.3% in 2009 depicting high level of volatility of gross revenue ratio among local and foreign conventional banks. The decline in gross revenue ratio was attributed to steep increase in revenues from increased lending activities from 2006 to 2008.

Foreign conventional banks and Local Conventional banks recorded gross revenue ratio means surge in 2009 attributed by the reduced banking revenue caused by the economic downturn and/or increase in Tier 1 capital.

Islamic banks gross revenue also followed a similar trend to increase from 136.3% (2007) to 170.9% (2009) owing to improving capital adequacy.





Source: Table IV - Table VI Appendix III

The standard deviation trend of gross revenue ratio for local conventional banks rose steadily from 72.1%in 2006 to 95.2% in 2009. Local conventional banks have lower means and increasing level of standard deviation trend for gross revenue ratio reflecting riskier earnings compared to foreign conventional banks indicating this could be arise from the impact of the global financial crisis. This could be result of Local of Conventional Banks shifting focus from interest income to non interest income to diversify from the thinning margin of income from interest income.

Standard deviation trend for Foreign Conventional banks' gross revenue ratio dropped drastically from 536% (2006) to 441% (2008) and rose to 544% reflecting an increased level of volatility in capital and /or revenue. This may arise from the impact f the global financial crisis.

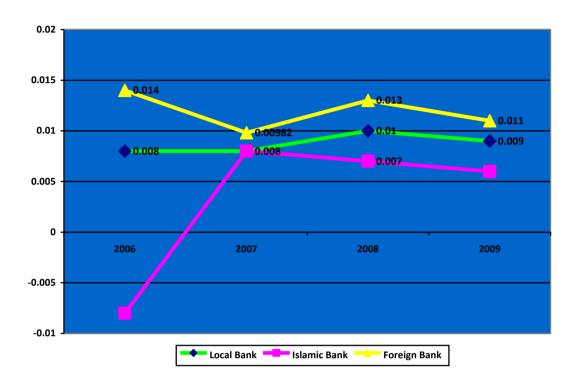
compared to local and foreign conventional banks during the global financial crisis.

### 4.3 Return On Assets Ratio

Return on Assets Ratio is based on the relationship of net earnings to total assets. The study of this ratio attempts to relate volatility of earnings to understand risk.

Figure 4.3.1

Mean Return On Assets



Source: Table VII - Table IX Appendix III

Analysis of the chart above indicate steady decline in return on assets ratio mean for Islamic Bank from 0.8% in 2007 to 0.6% in 2009. Decline in mean is probably attributed to lower earnings as demand for Islamic products are still damp in the market compared to conventional products.

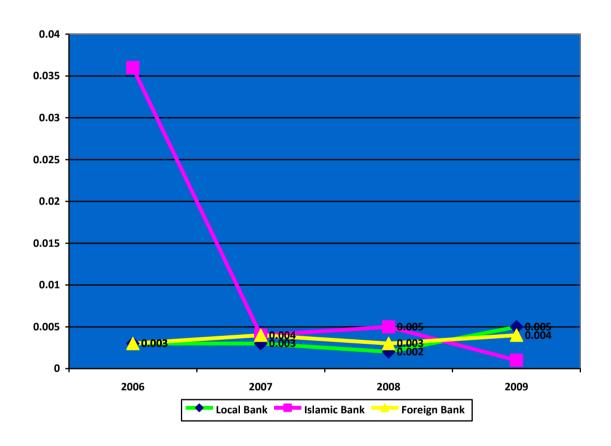
Further, as the product offerings are similar except Shariah compliant, there is no motivation for consumers to demand for the Islamic products.

Islamic banking operating independently since 2006 is still in infancy stage and is still struggling to command a higher earning margin. Foreign Conventional banks' return on asset ratio was volatile in a yo-yo motion with deterioration in 2007 with a surge in 2008 followed by a dip in 2009.

Local Conventional Banks displayed higher mean until 2008 (1%) and dipped marginally in 2009 (0.9%) owing to the thinning income margin and steady increase of total loans.

Figure 4.3.2.

Standard Deviation Return on Assets



 $Source: Table\ VII-Table\ IX\ Appendix\ III$ 

Local conventional banks are having lower means and higher standard deviations trend than Foreign conventional banks indicating that local conventional banks' earnings are riskier than Foreign Conventional banks earnings. Local conventional banks' return on assets standard deviation increased drastically in 2009 indicating increased volatility in earnings of local banks that have also shifted reliance to fee based income to supplement eroding margins.

Standard deviation trend for return on assets ratio for Islamic Bank declined drastically from 3.6% in 2006 to 0.1% displaying stability in returns with low levels of risk of bank failure.

Foreign conventional standard deviation trend for return on assets displayed a yo-yo motion indicating higher level of risks in earnings leading towards bank failure which could be an impact induced by Foreign Conventional banks relying on fee based income which is riskier than interest income.

## 4.4. Returns On Equity Ratio

Returns On Equity Ratio relates earnings to owners equity. This ratio measures the volatility of rate of return for shareholders. Return on equity is also viewed as the bottom line measure of firm performance.

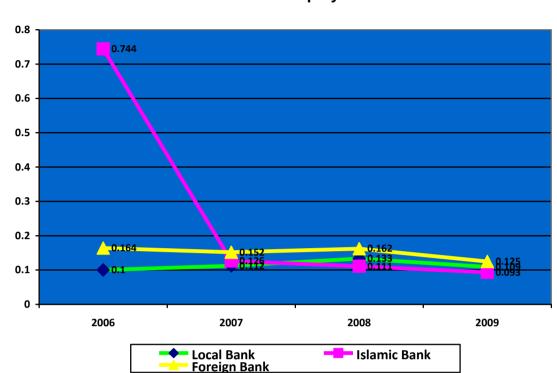


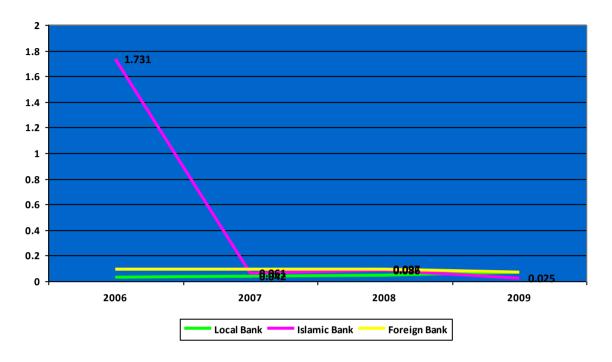
Figure 4.4.1 Mean Return on Equity Ratio

Source: Table X – Table XIII Appendix III

Analysis the chart above indicates increase in mean for returns on equity ratio for local conventional banks from 10% in 2006 to 13.3% in 2008 followed by a dip to 10.9% in 2009 arising from lower earnings. Islamic banks' mean for returns on equity declined drastically from 74.4% in 2006 to 12.6% in 2009 as most of the Islamic Banks were in its infancy stage and equity injection was low initially. Bank Islam recorded large losses in 2006 wiping off the shareholders equity totally. Over the years, equity injection was evident whereby the mean of Returns On Equity Ratio declined consistently.

Foreign Conventional banks experienced deteriorating return on equity ratio owing to lower returns experienced by smaller foreign conventional banks.





Source : Table X – Table XIII Appendix III

Standard deviation trend of return on equity of local banks rose steadily from 3.4% in 2006 to 6.8% in 2009 displaying severe volatility in returns.

Shareholders face the risk of declining returns on their equity impacted by the global financial crisis.

Standard deviation trend of Returns On Equity Ratio for Islamic Banks deteriorated drastically from 173.15% in 2006 to 2.5% in 2008 indicating low levels of risks and increased stability in shareholders' returns.

Standard deviation trend of return on equity for Foreign Conventional Banks declined from 16.4% in 2006 to 12.5% 2009 reflecting less volatility in shareholders returns.

#### 4.5 Conclusion

Based on the findings above, though Islamic banks recorded lower means in leverage ratio and gross revenue ratio, but have been showing an improving trend from 2006 to 2009. The sharp decline in standard deviation trend for these ratios for Islamic banks also indicate low levels of risks leading to bank failure whereby Islamic banks are not impacted by the global financial crisis. Islamic banks also recorded declining mean for return on assets and return on equity ratio with corresponding decline in standard deviation displaying stability in returns on assets and return on equity.

Local conventional banks recorded an up trend leverage ratio mean indicating better capital adequacy than Islamic banks. Local conventional banks also maintained better gross revenue ratios than Islamic Banks.

However the standard deviation trend also rose correspondingly for both ratios indicating higher risk levels impacted by the global financial crisis.

Local conventional banks also experienced surge in mean for return on assets and return on equity ratios from 2006 to 2008 and then a dip in 2009.

However, standard deviation trend for both ratios rose drastically displaying high levels of volatility arising from the risk impacted by the global financial crisis.

Foreign Conventional banks experienced decline in leverage ratio from 2006 to 2008 and a surge in 2009. Standard deviation trend declined from 2006 to 2009 showing better capital adequacy compared to local conventional banks only.

Foreign conventional banks recorded highest gross revenue mean with higher corresponding standard deviation especially in 2009 indicating riskier revenues compared to local conventional and Islamic banks. Return on assets ratio for Foreign Conventional Banks' mean declined but standard deviation rose marginally lower than local conventional banks indicating lower level of risk in Foreign conventional banks.

Foreign conventional banks return on equity ratio also deteriorated with corresponding decline in standard deviation trend displaying lower volatility compared to local conventional banks where the return on equity ratios mean was initially declined and rebounded but the standard deviation rose steadily indicating higher levels of risk compared to foreign conventional and Islamic banks in tandem with the global financial crisis.