

## **CAPITAL BUDGETING PRACTICES IN QUOTED BANKS IN NIGERIA**

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### **ABSTRACT**

The aim of the paper is provide evidence about the determinants of capital budgeting in Nigeria banks. A sample of Nigerian quoted banks was observed for the year 2012. The study utilized the regression analysis method. The study found a significant positive relationship between fixed asset acquired, and profitability, bank performance and leverage. Furthermore, the study found no significant relationship between fixed asset and retention ratio and between fixed assets acquired and Return on assets.

These results suggest that there exist an association between size of capital budget and bank profitability, and also indicated that dividend retention ratio does not determine the size of capital budget. It was found out that bank size, profitability and leverage are determinants of capital budgeting in the banking sector. It was recommended that Capital budgeting decision is a non-negotiable investment decision making process; hence management of banks should take it serious.

**KEYWORDS:** Capital Budgeting, Bank Performance

### **INTRODUCTION**

Capital budgeting plays a pivotal role in any organisation's financial management strategy. Gitman (2008) defines it as the "process of evaluating and selecting long term investments that are consistent with the business's goal of maximising owner wealth". Typically every organisation that embarks on this process must take all necessary steps to ensure that their decision making criteria supports the business's strategy and enhances its competitive advantage over its rivalries.

The realisation that a business leverages its competitive advantage on its resources and on how it undertakes decisions relating to the use of its resources, such as financial resources call for managers to make informed decisions. Managers world over have developed both systematic and non-systematic ways to handling capital budgeting procedures in their organisation. In today's highly competitive environment, managerial decisions are usually but not always based on informed research and information.

Capital budgeting practices are some of the vital inputs in the decision-making process of embarking on investment projects. A very good analysis, scrutiny, implementation and monitoring of such projects could yield the expected results for the stakeholders. According to Dayananda, Irons, Harrison, Herbohn and Rowland (2002), the capital budgeting practices are used to make investment decisions so as to increase shareholders value.

Capital budgeting is primarily concerned with sizable investments in long-term assets (Elumilade, Asaolu, and Ologunde, 2006). Capital budgeting decisions thus have a long-range impact on the strategic performance of the organization and are also critical to its success or failure. Capital budgeting plays an important role in allocating resources in enterprises. Through a well-structured process of capital budgeting done by individual divisions, an enterprise can compare the profitability of its divisions, assess the feasibility of new business proposals, decide which projects to expand,

construct a corporate portfolio to maximize returns, such as return on asset (ROA), return on equity (ROE) and risk-adjusted return of capital (RAROC), and minimize risk (Wong, 2009).

In 2006, a new global regulatory standard Basel II was implemented. It requires banks to prepare sufficient capitals, mostly comprised of equity, to support their risky business. Under Basel II, capital charges are linked with three risk categories, namely market risk, credit risk and operational risk. All risk exposures are converted to risk-weighted assets.

Banks are required maintain a minimum capital adequacy ratio at 8% (i.e. Regulatory capital / Risk-weighted assets > 8%). Currently most banks follow simple methods (standardized approach or others) specified by their bank supervisors to compute capital charges. Some rely on their internal models to estimate risk levels and convert these risk estimates to capital charges with equations specified by their bank supervisors.

For all internal models, banks should have rigorous procedures to do back-testing or model validation. Basel II compliance is not simply computing right risk estimates. To maximize the use of their capitals, banks should think strategically how to allocate capitals to individual divisions and projects. An ideal scenario will be "high profit with low capital charge".

Also, banks cannot easily grow their equity in a pace like what they can do on their asset. Therefore, banks should have an effective capital budgeting process that considers cash flows, capital charges to be required and cost of the capital charges (Basel Committee, 2006).

There had been so much debate about the current banking crisis, but less attention has been paid to the capital budgeting practices at the banks and its adverse effect on the industry. The banking industry, particularly in Nigeria, has experienced many changes in the last few years, and there are no indications the future will be different.

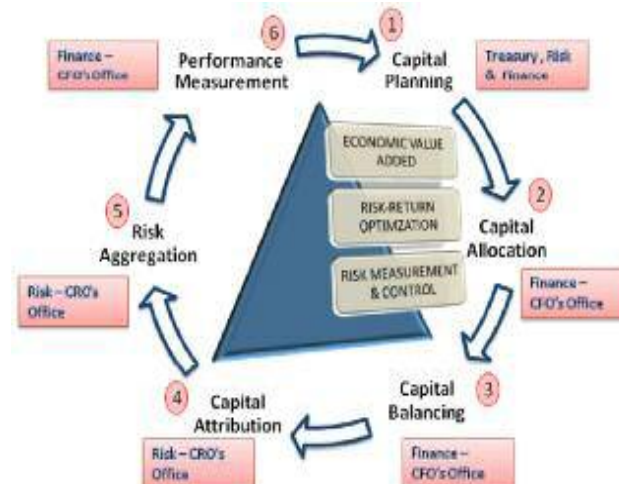
This movement of banks and bank holding companies into new markets and the concomitant capital expenditures will increase the potential for using a variety of capital budgeting techniques. In an effort to gauge current industry practices for capital budgeting and to find out the determinants of capital budgeting, this study was birthed. The objective of this study is to find out the determinants of capital budgeting in the Nigerian banking sector.

Using fixed assets acquisition as a proxy for capital budgets, the study build a model relating capital budget to ROA, retention ratio, profitability, growth in profitability, leverage and total assets. To the knowledge of the author, no study has examined the determinants of capital budgeting in the Nigerian Banking Sector.

## **CAPITAL BUDGETING IN BANKING SECTOR**

Financial market catastrophes in the recent past have fuelled banks worldwide to overhaul risk management practices. As Chief Risk Officers (CROs) get questioned on the situational legitimacy of risk processes, for the first time risk management has emerged as the main priority of the CEO. Sumit (2009) introduced a framework for the fundamental yet comprehensive process of capital management, calling it 'Capital Budgeting & Management Cycle' (CBMC).

It comprises of six interlinked cross-divisional tasks including capital planning, capital allocation, capital balancing, capital attribution, risk aggregation and performance measurement. These tasks work as a continuous sequence and feed into one another to achieve the end goal of efficient management of bank's capital and achievement of Economic Value Added (EVA).



Source: <http://ssrn.com/abstract=1548560>

**Figure 1: A Depiction of CBMC in its Overall Workflow**

The tasks 1 to 6 are necessary for ensuring that management of capital in banks becomes logical, follows a process flow and becomes more result oriented - an enabler to attain the end goals. However, a firm-wide risk management mind set and infrastructure is essential for its implementation. This means that risk is treated analogous to capital, and risk taking, exposure management and performance measurement is done with capital as the centrepiece, and all efforts go to maintain its adequacy as well as optimised utilisation.

The cycle starts with long-term planning of capital (done by treasury with inputs on ECAP from risk and regulatory capital from finance) that helps setting budgets for overall group level capital over the planning horizon. Information of capital feeds into capital being allocated to different divisions that are the Primary Allocation Targets (PATs) and from where risk budgets get cascaded down to sub-divisions or different desks. Once allocated, periodic reviews are done to ensure that objectives are getting achieved by business units or it needs to be re-balanced to match performance. As business units take on exposures, measure and control risks, they need to measure the amount of capital on a diversified basis consumed in portfolios vis-à-vis allocated budgets. Using information on capital attribution across portfolios, risk teams aggregate it periodically to find total capital consumption at the level of business units, products, and the group. It leads to a point in the cycle, when ex post performance measurement compares achieved performance with targeted, compares cross-unit performance for compensation and benefit and sets capital planning goals (Sumit, 2009).

According to Acharya and Franks (2009), capital as is used in the banking industry generally refers to bank equity as well as some subordinated kinds of debt. 'Funding', in contrast, refers to a bank loans retail deposits, commercial paper and inter-bank loans. This distinction between the two sources of bank financing derives primarily from the regulatory environment, namely capital requirements.

However, when considering a bank's cost of capital; an economic rather than a regulatory concept, of forms of debt (including retail deposits commercial paper, and interbank loans) as well as equity should be considered to be capital. While banks finance their activities with debt most of the time, debt markets do dry up some of the time, especially when there is an accentuation of credit or liquidity risk (as witnessed in recent times and in past financial crises). When this happens, banks have to raise equity (or, if this is not possible, to seek taxpayer support). At certain times of the economic cycle when the bank is relying on debt capital it may look as though the sole source of capital is based on debt. However, at other points of the economic cycle other sources of capita such as equity will play a greater role. At all times, the cost of capital for banks should reflect the cost of the economic cycle - that is, in both good and bad times.

Even if bank management recognize that a bank's cost of capital is a weighted average of debt and equity costs, there are two subtle pitfalls in how this recognition translates into implementation. First, banks commonly assume that their cost of equity capital is flat at a level of 10%, along a whole range of leverage in their capital structure. This assumption, we believe, is wrong. Second, measured or reported betas of banks in good times, which often form the basis of bank's cost of equity, calculations, underestimate the true cost of equity capital

It is easy to see why a bank's cost of capital is not invariant to its leverage mix, even though this might seem to be the case in certain parts of the economic cycle. Consider a world where a bank's credit risk were fully priced into its liabilities – that is, a world in which there were Central Bank guarantees (implicit or explicit) and no deadweight costs associated with leverage and default. In such a world, as bank leverage increases, the likelihood of default would rise, raising the cost of debt and the cost of equity; the increase in the cost of debt would, however, be offset by the larger weighing of debt in the capital structure. Since debt consist of the cheaper form of financing, this re-weighting ensure that in the absence of deadweight costs of leverage, the overall cost of capital is invariant to the leverage mix. This is the much – celebrated Modigliani and Miller result from the theory of corporate finance (Acharya and Franks, 2009).

In practice, however, bankruptcies of banks and financial institutions, especially large ones, are costly affairs as bank assets are, and have increasingly become, opaque and their liquidation characterized by significant fire – sale discounts. These discounts reflect a deadweight cost of leverage for banks. In order to avoid these discounts, banks should and do access equity markets for funding before undertaking larger-scale liquidations. Equity issuance, is however, also quite costly, especially given the opaqueness of bank balance sheets. These costs should be priced into the overall cost of bank capital, particularly when considering leverage decision. In principle, this means that, as leverage rises, the cost of both debt and equity rise and so does the deadweight cost of leverage. The overall cost of bank capital should thus increase once leverage and default risk become sufficiently high. By better estimating the cost of capital banks will set realistic capital structures.

However, what explains the deceptively flat cost of debt in good times, which some bankers believe translates into a flat cost of equity and thereby a lower overall cost of capital for a whole range of leverage is that the flat cost of debt is not a reflection of the low business risk of the bank's assets, but is largely a reflection of the value of the central bank guarantees over some or all parts of bank debt.

The low cost of debt in good times also creates the illusion that the bank cost of equity is also low, albeit higher than the cost of debt. This low cost of equity is usually based on low equity betas, measured only using data in good times, and implies implausibly low levels of business risk. We believe that these low equity betas not only fail to capture realistic estimates of account for the cost of equity in bad times, the latter costs are especially high because of the dilution costs since, as argued above, banks are generally forced to issue, equity only in bad times when there is a certain 'stigma' attached to it: accessing equity funding sends an adverse signal to the market that the bank must be in economic value of 'retained equity' which in bad times carries significantly high opportunity costs.

Since the flat cost of debt encourages a high level of leverage in bank balance sheets, bank equity is turned into a virtual 'call' option on the underlying assets. Thus, it is clear that as leverage increases, the equity of the bank resembles more and more an 'out-of-the-money' option on the bank's assets. At these high levels of leverage, a small change in the bank's asset value will cause much more than a one-for-one change in its equity value. In particular, a small business loss can wipe out a significant part of the equity value (as witnessed recently), forcing costly asset sales and equity issuance. Put simply, with high leverage, equity is a highly levered bet on a bank's assets.

This view of equity is important because it implies that bank equity will have a low beta in its assets (and thus on the markets) in good times when the equity options is essential in-the-money', but a much higher effective beta in bad times when the option is out-of-money (Acharya and Franks, 2009).

## **DETERMINANTS OF CAPITAL BUDGETING**

Graham and Harvey (2002) and Meier and Tarhan (2007), estimated binary models explaining choices of capital budgeting methods, as in Brounen, De Long, Koedijk (2004) and Hermes, Smid, and Yao (2007). However, there is still a shortage of studies looking into cross-sectional determinants of the choices of capital budgeting methods determinants of the choices of *capital budgeting methods* in a broader context. Meier and Tarhan (2007) asserted that (1) over time, firms show an increasing tendency to use DCF-based methods, (2) firms mostly uses WACC as the discount rate, and (3) when computing the discount rate, the cost of equity is typically inferred from the CAPM. They found an increasing usage of these methods and models over time. These findings suggest an increasing sophistication in capital budgeting over time.

Below are some of the determinants of the choices of capital budgeting methods;

### **Real Options**

Jagannathan and Meier (2002) show that a hurdle premium (a hurdle rate higher than the cost of capital) may capture the option value, and that, given the uncertainty associated with the cost-of-capital, managers may choose a single, high enough hurdle rate that is near optimal for a range of costs of capital. They predict that a higher hurdle premium would be more likely for projects that require the use of skilled manpower, or special purpose facilities that take time to build and face organizational constraints, and lock in much of the capacity of the firm. For such projects, the option to wait would be more valuable, and hence the hurdle rate used might be higher independent of the project's systematic risk. i.e. firms with complex projects would have a higher hurdle rate premium.

McDonald (2006) suggests that the simultaneous use of many capital budgeting methods parallel to DCF, such as IRR, payback, and P/E multiples, may mean that managers perform a variety of formal calculations, and then make decisions by weighing the results and also using subjective judgment. A part of such judgment may represent their "adjustments" of DCF methods to take real option values into account.

### **Agency Problems**

Poterba and Summers (1995) suggest that some managers may set hurdle rates above their required returns as a way to correct for overly optimistic cash flow projections in projects they are asked to consider. For project managers (the ones who suggest the projects for top managers) to want to push their projects in such a way, there must be some rewards from getting their projects approved. Also relying on an agency explanation, Berkovitch and Israel (2004) suggest that in large corporations with a relatively high likelihood of realizing good investment opportunities, a centralized capital allocation process with hurdle rates above the cost of capital will be used. Smaller, manager owned companies will only consider the NPV rule, and the owner's personal preferences.

Martin (2008) suggests that also the use of a single discount rate instead of project specific rates may have its roots in managerial incentives to get projects, which benefit them personally, approved. Such incentives could encourage managers to inflate the expected cash-flows, and, if possible, understate project risks. While systematic inflation of cash-flows is relatively easy to detect ex-post, it is harder to determine whether the discount rate used has been appropriate. To curb with the problem, firm may restrict the use of discount rates to a single one. Martin (2008) suggests that larger and

more bureaucratic firms with multiple levels of management might be more subject to such incentive problems as compared to smaller firms run by their owners.

### Political Risk

Holmén and Pramborg (2006) focus on capital market imperfections, and suggest that since political risk may be non-linear, and involve a high degree of qualitative judgment, firm may tend to use of rules of thumb such as the payback method. They report that in their sample of Swedish firms, the use of NPV decreases with the political risk of the host country, and the use of the payback method increases.

### CEO / CFO Characteristics

Manager Qualifications such as the level of their knowledge of capital budgeting methods may also matter. Graham and Harvey (2002) find that CEOs with MBAs are more likely than non-MBA CEOs to use NPV. Also Brounen et al. (2004) and Hermes et al. (2007) find that CFO's education (as well as age, in Hermes et al. 2007) is significant determinants for whether the firm uses NPV.

### Short-Term Pressure

Several studies (e.g. Graham et al. 2006), have reported evidence of value-destroying actions / myopic management decisions. If the managers feel pressure to produce improved results above all in the short-term, even actions that hurt long-term performance may be undertaken. Liljeblom and Vaihekoski (2009) studied effects of such short-term pressure. Using ownership data on the main owners, they grouped firms in potentially more long-term vs. short-term oriented firms and found that reported WACCs (based on survey data) were significantly higher (17.1% vs. 12.8%) among firms grouped as potentially more short-term oriented.

## DATA AND METHOD

The data for the study is sourced from annual reports of banks listed on the stock exchange as at 31<sup>st</sup> December, 2012. There are fourteen banks listed on the Nigerian Stock Exchange as at this date. The research design is therefore cross-sectional. Data was gathered from all 14 banks and analysed using ordinary least square regression method. The model for the regression is specified as follows:

$$FAA = f(RER, PR, SIZE, LEV, PR_{t-1}, ROA)$$

The linear or econometric form of the model is;

$$FAA = b_0 + b_1RER + b_2PR + b_3SIZE + b_4LEV + b_5PR_{t-1} + b_6ROA + U_t$$

Where

FAA = Fixed Assets Acquired

ROA = Return on Assets

RER = Retention Ratio

PR = Profitability

SIZE = Total asset

LEV = Leverage

$PR_{t-1}$  = Profitability growth

$U_t$  = Error Term

The apriori expectation is stated thus;

$b_1 - b_6$  (positive sign)

**RESULTS**

**Table 1: Regression Results**

Variables	Coefficient	t-Ratio
Dependent variable (FAA)	-8.400	-4.460
Independent variables:		
PR	95.968	1.725
PRT	44.357	.919
ROA	-81.006	-1.382
RER	-.352	-.294
SIZE	1.196	10.258
LEV	.017	.771

Source: Author computation using e-views 7.0

$$R^2 = 0.902$$

$$\overline{R^2} = 0.857$$

$$F_{(6,2)} = 19.99$$

$$DW\text{-Statistic} = 2.847$$

$$FAA = \beta_0 + \beta_1PR + \beta_2PRT + \beta_3ROA + \beta_4RER + \beta_5SIZE + \beta_6LEV$$

$$\beta_1 - \beta_6 > 1$$

$$FAA = -8.4 + 95.968PR + 44.357PRT - 81.006ROA - 0.352RER + 1.196SIZE + 0.017LEV$$

$$(-4.460) (1.725) (0.919) (-1.382) (-0.294) (10.258) (0.771)$$

The coefficient determination ( $R^2$ ) from our regression result is given as 0.902. This implies that 90.2% of the variation in Fixed Asset Acquired (FAA) is accounted for by the independent variables (PR, PRT, ROA, RER, SIZE and LEV).

The adjusted coefficient of determination ( $\overline{R^2}$ ) is given as 0.857. This implies that precisely 85.7% of the variation in the FAA is accounted for by the independent variables. The above coefficients ( $R^2$  and  $\overline{R^2}$ ) suggest the existence of a strong relationship between the dependent variable Fixed assets (FAA) and the independent variables (PR, PRT,ROA, RER, SIZE and LEV).

From the result above, the coefficient of Profitability ratio (PR) is 95.968, this implies that there is a positive relationship between PR and FAA, such that a unit increase in Profitability ratio (PR) will result in an increase in Fixed asset acquired (FAA) by 95.968 units. This conforms to the a priori expectation which indicates a positive relationship between PR and FAA. This suggests that the relationship is statistically significant at 5% level.

The coefficient of Profitability ratio of t-1 (PRT) is 44.357; this implies that there is a positive relationship between PRT and FAA, such that a unit increase in PRT will result in an increase in FAA by 44.357 units. This conforms to the a priori expectation which indicates a positive relationship between PRT and FAA. This suggests that the

relationship is statistically significant at 5% level. From the result above, the coefficient of Return on assets (ROA) is -81.006. This implies that there is a negative relationship existing between ROA and FAA, such that a unit increase in ROA will result in a decrease in FAA by 81.006 units. This does not conform to the a priori expectation which indicates a negative relationship between ROA and FAA. This suggests that the relationship is statistically insignificant at 5% level.

The coefficient of Retention ratio (RER) is -0.352. This implies that there is a negative relationship existing between RER and FAA, such that a unit increase in RER will result in an increase in FAA by 0.352 units. This does not conform to the a priori expectation which indicates a positive relationship between RER and FAA. This suggests that the relationship is statistically insignificant at 5% level.

The coefficient of Firm size (SIZE) is 1.196. This implies that there is a positive relationship existing between SIZE and FAA, such that a unit increase in SIZE will result in an increase in FAA by 1.196 units. This conforms to the a priori expectation which indicates a positive relationship between SIZE and FAA. This suggests that the relationship is statistically significant at 5% level.

The coefficient of Leverage (LEV) is 0.017. This implies that there is a positive relationship existing between LEV and FAA, such that a unit increase in LEV will result in an increase in FAA by 0.017 units. This conforms to the a priori expectation which indicates a positive relationship between LEV and FAA. This suggests that the relationship is statistically significant at 5% level.

The t-values (t-ratios) of Profitability (PR), Profitability of t-1 (PRT), Firm size (SIZE) and Leverage (LEV) which are 1.725, 0.919, 10.258 and 0.771 respectively, supports the existence of a positive relationship between these independent variables and Fixed assets acquired (FAA), which is statistically significant at 5% level. While Return on assets (ROA) and Retention ratio (RER), with t-ratios -1.382 and -0.294 respectively supports the existence of a negative relationship between these variables and Fixed asset acquired (FAA). But only that of PR, PRT, SIZE and LEV are statistically significant in the light of the a priori expectation.

The table above revealed the result of the  $F_{stat}$  as 19.99%, thus indicating that the overall model was statistically significant. This result however suggests that FAA the dependent variable and the independent variables (PR, PRT, ROA, RER, SIZE and LEV) are linearly related. Hence, the model is valid for policy recommendation.

Further confirming the f-test result, the DW –statistics value of 2.847 which indicates a minimal level of autocorrelation in the model, also suggests that the model is valid for policy recommendation.

## CONCLUSIONS AND RECOMMENDATION

Banks are central to the Nigerian economy. Capital budgeting is a risky decision which can heighten the already risky nature of banks. Examining the factors that determine the size of capital budgets will help bank regulators and management to manage the associated risks capital investment.

The study is about capital budgeting processes in the quoted banks in Nigeria. A sample of 14 Nigerian quoted banks for the year 2012 was considered. The study found a significant negative relationship between fixed asset acquired and the retention ratio. However, fixed asset acquired was found to have a significant positive relationship with profitability ratio, bank size, and leverage. The analysis revealed that the bank size, leverage, profitability ratio are the determinants of capital budget as far as this study is concern.

Effective and efficient capital budgeting will depend on availability of capital as reflected in positive and significant correlation between fixed asset acquisition on the one hand and bank size, leverage and profitability. This is



also implied by the negative relationship between retention ratio and fixed asset acquisition. There the study recommends that banks should seek funds to finance capital projects as it reflects positively on their profits and hence their size.

## REFERENCES

1. Acharya, V. V. and Franks, J. (2009). Capital budgeting at banks: the role of government guarantees. *Oxera Agenda*. [www.oxera.com](http://www.oxera.com)
2. Basel Committee (2006). "International Convergence of Capital Measurement and Capital Standards: A Revised Framework". Bank for International Settlements.
3. Berkovitch, E. and Israel, R. (2004). "Why the NPV Criterion does not Maximize NPV". *Review of Financial Studies* 17, 239-255.
4. Brounen, D., De Long, A., Koedijk, K., (2004). "Corporate finance in Europe: Confronting theory with practice". *Financial Management* 33, 71-101.
5. Dayananda, D., Irons, R., Harrison, S., Herbohn, J. and Rowland, P. (2002). *Capital Budgeting: Financial Appraisal of Investment Projects*. Cambridge University Press, Edinburgh.
6. Elumilade, D. O., T. O. Asaolu and A. O. Ologunde (2006). Capital Budgeting and Economic Development in the Third World: The Case of Nigeria. *Int. Res. Journal of Finance and Economics* Vol.2, pp. 1-17.  
<http://www.eurojournals.com/finance.htm>
7. Gitman, L. J. (2008). *Principles of Managerial Finance*, 12th Edition, Pearson International.
8. Graham, J. R., Harvey, C. R., (2002). How do CFOs make capital budgeting and capital structure decisions? *Journal of Applied Corporate Finance* 15, 1, 8-23.
9. Hermes, N., Smid, P., Yao, L., (2007). Capital budgeting practices: A comparative study of the Netherlands and China. *International Business Review* 16, 5, 630-654.
10. Holmén, M. and Pramborg, B. (2006). Capital budgeting and political risk: Empirical evidence. *Journal of International Financial Management & Accounting* 20, 105-134.
11. Jagannathan, R., and Meier, I., (2002). Do we need CAPM for capital budgeting? *Financial Management* 31, 55-77.
12. Liljeblom, E., and Vaihekoski, M., (2009). "Corporate Ownership and Managerial Short-Termism: Results from a Finnish Study of Management Perceptions". *International Journal of Production Economics* 117, 427-438.
13. Martin, J. (2008) "Single vs. multiple discount rates: how to limit "influence costs in the capital allocation process". *Journal of Applied Corporate Finance* 20, 79-83.
14. Meier, I. and Tarhan, V. (2007) "Corporate Investment Decision Practices and the Hurdle Rate Premium Puzzle," Working Paper, Loyola University of Chicago. Available at <http://ssrn.com/abstract=960161>
15. McDonald, R. L. (2006). "The role of real options in capital budgeting: theory and practice". *Journal of Applied Corporate Finance* 18, 28-39.
16. Poterba, J. M., and Summers, L. H., (1995). "A CEO survey of U.S. companies" time horizon and hurdle rates". *Sloan Management Review* 37, 43-53.

17. Sumit, M. (2009). Capital Management in Banks Using Fundamental but Comprehensive process. The Indian Banker Vol. IV, No. 2. Pp. 1-6.
18. Wong, M. C. S. (2009). "Bank Capital Budgeting After Basel II"  
(<http://www.corporateportfoliomanagement.net/Article-Baselii>).

## APPENDICES

### Regression Results

**Table 2: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.950 <sup>a</sup>	.902	.857	1.55436	.902	19.990	6	13	.000	2.847

a. **Predictors:** (Constant), LEV, SIZE, PRT, ROA, RER, PR

b. **Dependent Variable:** FAA

**Table 3: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8.400	1.884		-4.460	.001
	PR	95.968	55.632	.410	1.725	.108
	PRT	44.357	48.251	.104	.919	.375
	ROA	-81.006	58.624	-.319	-1.382	.190
	RER	-.352	1.196	-.033	-.294	.773
	SIZE	1.196	.117	.955	10.258	.000
	LEV	.017	.023	.074	.771	.455

a. **Dependent Variable:** FAA