Full Length Research Paper

Financial performance and ownership structure of Ethiopian commercial banks

¹Deepak Kapur and ^{2*}Abebaw Kassie Gualu

¹Faculty of Business Management and Commerce, University Business School, Panjab University, Chandigarh 160 014, India. ²University Business School, Panjab University, Chandigarh, 160 014, India.

Accepted 20 December, 2011

It has been argued since long time that private ownership of firms leads to better firm performance. Knowledge of the relationship of performance and ownership is assumed to have significance importance. This paper is an empirical analysis on the impact of ownership structure on the performance of Ethiopian commercial banks. We examined whether the ownership structure of banks significantly impinges on bank performance. We used eight Ethiopian commercial banks from 2001 to 2008 period. We have employed both parametric and nonparametric tests of differences among public and private sector banks. Results revealed that private sector banks had better profitability, asset quality and capital adequacy performance and public sector banks were better in cost management measures. In terms of liquidity, no difference was observed between the private and public sector banks.

Key words: Banking, financial performance, ownership, Ethiopia.

INTRODUCTION

Ethiopia's financial sector remains closed and is much less developed than its neighbors. Ethiopia has no capital market and very limited informal investing in shares of private companies. A series of financial sector reforms has been introduced since 1994, when private banks were allowed to be re-established. But the three large state-owned banks continue to dominate the market in terms of capital, deposits and assets. Ethiopian financial system is highly bank dominated (Kiyota et al., 2007).

Financial performance could be defined as a measurement of the results of a firm's polices and operations in monetary terms. In assessing the overall financial condition of a company, the income statement and the balance sheet are important reports, as the income statement captures the company's operating performance and the balance sheet shows its net worth. Financial performance could be assessed using the following key measures which are important to assess the current financial position and performance. These are descriptive and analytical measures of financial position and performance. Descriptive measures include total assets, total liabilities, stockholders equity, total revenues, total expenses and net income. And analytical measures of financial position and performance could include profitability, efficiency, liquidity and solvency measures.

It has been argued since long time that private ownership of firms leads to better firm performance, since private ownership leads to better intra- firm allocation of resources. However, it does not guarantee that privately owned firms would always perform better than public sector firms. At the same time, it has been argued that if firms are subjected to competitive forces, they would perform efficiently irrespective of the sector it belongs (Sumon and Dimova, 2003). On the other hand, Demestz and Lehn (1985) found no effect of ownership structure on accounting profits. And, Leech and Leahy (1991) found a negative and significant relationship between ownership concentration and firm value and profitability. Thus, the impact of ownership on performance is to some extent ambiguous and hence leads to interesting empirical exercises. And, no extensive research has been

^{*}Corresponding author. E-mail-abebawkassie@gmail.com. Tel: +91 9780818474.

done in this important aspect of finance theory in the Ethiopian context. It is worth noting that most research on ownership structure and firm performance has been dominated by studies conducted in developed countries. However, there is an increasing awareness that theories originating from developed countries such as the USA and the UK may have limited applicability to developing markets. Developing markets have different characteristics such as different political, economic and institutional conditions, which limit the application of developed markets' empirical models. Since most associated literatures focus on developed countries, it is worthwhile to empirically examine them in developing countries.

The objective of this paper is to examine the relationship of the different attributions of the performance measures of Ethiopian commercial banks in their ownership structure. Considering the nature and objective of the present study, we have used analytical measures of financial performance of banks measured in terms of profitability, efficiency, asset quality, liquidity and capital management measures. The paper will add knowledge on the limited available literature as there is no an extensive study on the subject and individual banks will know their relative performance strength and weaknesses.

LITERATURE REVIEW

Pedersen and Thompson (1997) and Zeitun and Tian (2007) have asserted that ownership structure has impacts on a firm's performance and its default risk. However, there is need to emphasize that the empirical studies of the relationship between firm performance and ownership concentration and structure have produced mixed results. For example, Demestz and Lehn (1985) found no effect of ownership structure on accounting profits. On the other hand, Leech and Leahy (1991) found a negative and significant relationship between ownership concentration and firm value and profitability.

Studies have been conducted on state versus private ownership of banks. Empirical evidence from (LaPorta et al., 2002; Micco et al., 2004) suggest that state-owned banks operating in developing countries tend to have lower profitability than their private counterparts and that this lower profitability is due to lower net interest margin, higher overhead costs (mostly due to the fact that stateowned banks tend to employ relatively more people), and higher non-performing loans. When they focus on industrial countries, they found that, relative to their private counterparts, state-owned banks tend to have slightly higher overhead costs but other performance variables (profitability, margins, and non-performing loans) do not vary significantly across these two groups of banks. Sapienza (2004) states that state-owned banks charge lower interest rates than do privately owned banks to similar or identical firms.

Clarke et al. (1999) state that state-owned enterprises (SOEs) experience poorer corporate governance than private firms; and this could be attributed to weak incentives for managers to perform effectively. SOEs managers do not face a market for their skills or a credible threat of losing their job for non-performance; and bankruptcy, liquidation or hostile takeover are not credible threats for state owned firms (Berglof and Roland, 1998; Dewatripont and Maskin, 1995; Schmidt, 1996; Vickers and Yarrow, 1989, 1991).

Micco et al. (2004) attribute state banks' low profitability to the fact that, rather than maximizing profits, they respond to a social mandate. Since state banks are owned by the government, they often align themselves with government policies even when these policies significantly diminish their profit margins. Thus, the impact of ownership on performance is to some extent ambiguous and hence leads to interesting empirical exercises. This paper deals in the subject in Ethiopian context as it is not dealt in depth before.

METHODOLOGY

Data

Data employed for the purpose of this study were obtained from financial statements of 8 commercial banks that operated in the Ethiopian banking industry. All commercial banks which were operational within Ethiopia in the study period are included. The time period of the study was from 2001 to 2008. The fiscal year ends on July 7 of each year. The data set consists of two banks which are wholly owned by public sector and six banks which are wholly owned by the private sector.

Data analysis tools

To empirically compare performance parameters of public and private sector banks in Ethiopia, the independent t-test and the nonparametric Mann- Whitney U test when the independent t-test was not appropriate was adopted. The financial performance of banks is measured in terms of profitability, efficiency, asset quality, liquidity and capital adequacy measures. Each measure has different variables within it. The financial parameters are computed from the income statement and balance sheet of the banks taken in to account for study period. We tried to develop a single index for each dimension using factor analysis. But results indicate that factor analysis was not appropriate to the data. Table 1 describes the variables used in the study.

To empirically compare performance parameters of public and private sector banks in Ethiopia, the independent t-test and the nonparametric Mann- Whitney test was adopted. The appropriateness of the parametric tests has been checked considering assumptions of those tests.

Data exploration

Field (2005) mentioned assumptions of t- test as test of normality, test of homogeneity of variance, interval scale and independence. The normality of the data has been checked using the Kolmogorov-Smirnov tests of normality. Six variables (ROE, NIM, NNIM, NIA, SEA and PNPL) at label stage and five variables (LnCI, LnNPL,

Table 1. Definition and measurement of variables.

Variable Definition and measurement Profitability The return on average total assets (net income after taxes to average assets Return on equity (ROE) Net income after tax to average equity capital of a bank Net interest income (NIM) The net interest income of the banks expressed as a percentage of their interest earning investments or assets. Net non interest income margin (NNIM) The proportion of net noninterest income to average assets Efficiency Non interest expenses to average total assets (NIA) Overhead (OH) The proportion of non interest expenses to average total assets (not income to net interest income ratio. Cost to income (CI) This is the excess of noninterest expenses) to net interest income General expenses to total assets (GEA) The proportion of general expenses to total assets Staff costs to total assets (SEA) The proportion of staff costs to total assets Asset quality Nonperforming assets (loans) to total loans and advances. Provisions to NPL)PNPL Provisions for loan and advances losses to total assets Provisions to assets(NPL PA) The proportion of total loan provisions to total assets Provisions to assets(NPL PA) The proportion of total loans and advances. Provisions to assets(NPL PA) The proportion of total loans to total asset			
Profitability Return on assets (ROA) The return on average total assets (net income after taxes to average assets Return on equity (ROE) Net income after tax to average equity capital of a bank Net interest income (NIM) The net interest income of the banks expressed as a percentage of their interest earning investments or assets. Net non interest income margin (NNIM) The proportion of net noninterest income to average assets Efficiency The proportion of non interest expenses to average total assets (NIA) Overhead (OH) The proportion of operating (non interest expenses) to net interest income ratio. Cost to income (CI) This is the proportion of operating (non interest expenses) to net interest income plus other income General expenses to total assets (GEA) The proportion of staff costs to total assets Staff costs to total assets (SEA) The proportion of staff costs to total assets Provisions to NPL)PNPL Nonperforming assets (loans) to total loans and advances. Provisions to loans(PL) Total provisions for loan and advances losses to total assets Provisions to assets(NPL PA) The proportion of total assets total assets Provisions to assets(NPL PA) The proportion of total asset total assets Provisions to assets(LD) The proportion of total loans to total assets Liquid assets to ass	Variable	Definition and measurement	
Return on assets (ROA)The return on average total assets (net income after taxes to average assetsReturn on equity (ROE)Net income after tax to average equity capital of a bankNet interest income (NIM)The net interest income of the banks expressed as a percentage of their interest earning investments or assets.Net non interest income margin (NNIM)The proportion of net noninterest income to average assetsEfficiencyImage: Composition of non interest expenses to average total assets (NIA)Overhead (OH)The proportion of non interest expenses to average total assets (NIA)Cost to income (CI)This is the excess of noninterest expenses to average total assets (SEA)General expenses to total assets (SEA)The proportion of general expenses to total assetsStaff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming assets (loans) to total loans and advances.Provisions to NPL)PNPLProvisions for loan and advances losses to total assetsProvisions to loans(PL)The proportion of total loans and advances losses to total assetsLiquid assets to assets (LAA)The proportion of total loans to total assetsLiquid assets to assets (LAA)The proportion of liquid assets to total assetsLiquid assets to assets (LAA)The proportion of total loans to total depositsLiquid assets to assets (LAA)The proportion of liquid assets to total assetsLiquid assets to assets (LAA)The proportion of total capital to total assetsLiquid assets to adversits (LAA)The proportion of liquid assets to total assetsLiquid assets to advers	Profitability		
Return on equity (ROE)Net income after tax to average equity capital of a bank The net interest income of the banks expressed as a percentage of their interest earning investments or assets.Net non interest income margin (NNIM)The proportion of net noninterest income to average assetsEfficiency Non interest expenses to average total assets (NIA)The proportion of non interest expenses to average total assetsOverhead (OH)The proportion of non interest expenses to average total assetsCost to income (CI)This is the excess of noninterest expenses to total assetsGeneral expenses to total assets (GEA) Staff costs to total assets (SEA)The proportion of general expenses to total assetsAsset quality Provisions to NPL)PNPLNonperforming assets (loans) to total loans and advances.Provisions to loans(PL)Total provisions for loan and advances losses to total assetsProvisions to assets(NPL PA)The proportion of total loans and advances losses to total assetsLiquid assets to deposits (LD) Liquid assets to deposits (LAA)The proportion of total loans to total deposits Liquid assets to deposits (LAA)Capital management Liquid assets (CAA)The proportion of liquid assets (total assets (deposits Liquid assets (CAA)Capital management Liquid assets (CAA)The proportion of total loans to total deposits Liquid assets to deposits (LAD)Capital management Liquid assets (CAA)The proportion of liquid assets to total assets (everage ratio)Capital to assets (CAA)The proportion of liquid assets to total assetsCapital management Liquid assets (CAA)The proportion of liquid assets to total assets <td>Return on assets (ROA)</td> <td colspan="2">The return on average total assets (net income after taxes to average assets</td>	Return on assets (ROA)	The return on average total assets (net income after taxes to average assets	
Net interest income (NIM) The net interest income of the banks expressed as a percentage of their interest earning investments or assets. Net non interest income margin (NNIM) The proportion of net noninterest income to average assets Efficiency The proportion of net noninterest expenses to average total assets (NIA) Overhead (OH) The proportion of non interest expenses to average total assets Cost to income (CI) This is the excess of noninterest expenses) to net interest income to net interest income fus other income General expenses to total assets (GEA) The proportion of general expenses to total assets Staff costs to total assets (SEA) The proportion of staff costs to total assets Asset quality Nonperforming assets (loans) to total loans and advances. Provisions to NPL)PNPL Provisions for loan and advances losses to total loans and advances Provisions to loans(PL) The proportion of total loan provisions to total assets Provisions to loans(PL) The proportion of total loan provisions to total assets Provisions to loans(PL) The proportion of total loan provisions to total assets Liquid assets to assets(LAA) The proportion of total loan provisions to total assets Liquid assets to assets (LAD) The proportion of liquid assets to total assets Liquid assets to deposits (LAD) The proportion of tota	Return on equity (ROE)	Net income after tax to average equity capital of a bank	
Net non interest income margin (NNIM)The proportion of net noninterest income to average assetsEfficiency Non interest expenses to average total assets (NIA)The proportion of non interest expenses to average total assets This is the excess of noninterest expense over total noninterest income to net interest income ratio.Cost to income (CI)This is the proportion of operating (non interest expenses) to net interest income plus other incomeGeneral expenses to total assets (GEA)The proportion of general expenses to total assets Staff costs to total assets (SEA)Asset quality Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances. Provisions to NPL)PNPLProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loans to total assetsLiquid assets to assets (LAA)The proportion of total loans to total assetsLiquid assets to assets(LAA)The proportion of total loans to total assetsLiquid assets to deposits (LAD)The proportion of total loans to total assetsCapital management Liquid assets (CA)The proportion of total loans to total assetsCapital to assets(CA)The proportion of liquid assets to total assetsCapital management Liquid assets (CA)The proportion of total loans to total assetsCapital to assets (CA)The proportion of liquid assets to total assetsCapital to assets (CA)The proportion of liquid assets to total assetsCapital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Net interest income (NIM)	The net interest income of the banks expressed as a percentage of their interest earning investments or assets.	
EfficiencyNon interest expenses to average total assets (NIA)The proportion of non interest expenses to average total assetsOverhead (OH)This is the excess of noninterest expense over total noninterest income to net interest income ratio.Cost to income (CI)This is the proportion of operating (non interest expenses) to net interest income plus other incomeGeneral expenses to total assets (GEA)The proportion of general expenses to total assetsStaff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming loans(NPL)Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to total loans and advancesProvisions to loans(PL)The proportion of total loan provisions to total assetsLiquid assets (LAA)The proportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of total loans to total depositsLiquid assets to deposits (LAD)The proportion of liquid assets to total assetsCapital managementCapital to assets (CA)Capital to assets (CA)The proportion of liquid assets to total assets	Net non interest income margin (NNIM)	The proportion of net noninterest income to average assets	
Non interest expenses to average total assets (NIA)The proportion of non interest expenses to average total assets This is the excess of noninterest expense over total noninterest income to net interest income ratio.Overhead (OH)The proportion of operating (non interest expenses) to net interest income plus other incomeCost to income (CI)This is the proportion of operating (non interest expenses) to net interest income plus other incomeGeneral expenses to total assets (GEA)The proportion of general expenses to total assetsStaff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming loans(NPL)Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)The proportion of total loan provisions to total assetsLiquidity management Loans to deposits (LD)The proportion of total loans to total deposits The proportion of liquid assets to total assetsLiquid assets to deposits (LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LAD)The proportion of total loans to total depositsCapital management capital to assets (CA)The proportion of liquid assets to total assets	Efficiency		
Overhead (OH)This is the excess of noninterest expense over total noninterest income to net interest income ratio.Cost to income (CI)This is the proportion of operating (non interest expenses) to net interest income plus other incomeGeneral expenses to total assets (GEA)The proportion of general expenses to total assets Staff costs to total assets (SEA)Asset quality Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances. Provisions to NPL)PNPLProvisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total assetsLiquidity management Loans to deposits (LD)The proportion of total loans to total deposits Liquid assets to deposits (LAA)Liquid assets to deposits (LAA)The proportion of liquid assets to total assetsCapital management capital to assets (CA)The proportion of total capital to total deposits	Non interest expenses to average total assets (NIA)	The proportion of non interest expenses to average total assets	
Cost to income (Cl)This is the proportion of operating (non interest expenses) to net interest income plus other incomeGeneral expenses to total assets (GEA)The proportion of general expenses to total assets Staff costs to total assets (SEA)Staff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming loans(NPL)Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity management Liquid assets to assets(LAA)The proportion of total loans to total depositsLiquid assets to deposits (LAD)The proportion of liquid assets to total assetsCopital management capital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Overhead (OH)	This is the excess of noninterest expense over total noninterest income to net interest income ratio.	
General expenses to total assets (GEA)The proportion of general expenses to total assetsStaff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total assetsProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity managementImage: Cost to total assets (LAA)Liquid assets to deposits (LAD)The proportion of load assets to total assetsCapital managementImage: Capital to assets (CA)Capital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Cost to income (CI)	This is the proportion of operating (non interest expenses) to net interest income plus other income	
Staff costs to total assets (SEA)The proportion of staff costs to total assetsAsset qualityNonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity managementImage: The proportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LAD)The proportion of liquid assets to total depositsCapital managementThe proportion of total capital to total assetsLiquid assets (CA)The proportion of total capital to total assets	General expenses to total assets (GEA)	The proportion of general expenses to total assets	
Asset qualityNonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity managementImage: Comportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LD)The proportion of liquid assets to total depositsLiquid assets to deposits (LAD)The proportion of liquid assets to total depositsCapital managementThe proportion of total capital to total depositsCapital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Staff costs to total assets (SEA)	The proportion of staff costs to total assets	
Nonperforming loans(NPL)Nonperforming assets (loans) to total loans and advances.(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity management Loans to deposits (LD)The proportion of total loans to total deposits The proportion of liquid assets to assets(LAA)Liquid assets to assets (LAD)The proportion of liquid assets to total depositsCapital management capital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Asset quality		
(Provisions to NPL)PNPLProvisions for loan and advances losses to nonperforming loans and advancesProvisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity management Loans to deposits (LD)The proportion of total loans to total deposits The proportion of total loans to total assetsLiquid assets to assets(LAA) Liquid assets to deposits (LAD)The proportion of liquid assets to total assetsCapital management capital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Nonperforming loans(NPL)	Nonperforming assets (loans) to total loans and advances.	
Provisions to loans(PL)Total provisions for loans and advances losses to total loans and advancesProvisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity management Loans to deposits (LD)The proportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LAD)The proportion of liquid assets to total depositsCapital management capital to assets (CA)The proportion of total capital to total assets (leverage ratio)	(Provisions to NPL)PNPL	Provisions for loan and advances losses to nonperforming loans and advances	
Provisions to assets(NPL PA)The proportion of total loan provisions to total assetsLiquidity managementThe proportion of total loans to total depositsLoans to deposits (LD)The proportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LAD)The proportion of liquid assets to total depositsCapital managementThe proportion of total capital to total assets (leverage ratio)	Provisions to loans(PL)	Total provisions for loans and advances losses to total loans and advances	
Liquidity management The proportion of total loans to total deposits Loans to deposits (LD) The proportion of total loans to total deposits Liquid assets to assets(LAA) The proportion of liquid assets to total assets Liquid assets to deposits (LAD) The proportion of liquid assets to total deposits Capital management The proportion of total capital to total assets (leverage ratio)	Provisions to assets(NPL PA)	The proportion of total loan provisions to total assets	
Loans to deposits (LD)The proportion of total loans to total depositsLiquid assets to assets(LAA)The proportion of liquid assets to total assetsLiquid assets to deposits (LAD)The proportion of liquid assets to total depositsCapital managementcapital to assets (CA)The proportion of total capital to total assets (leverage ratio)	Liquidity management		
Liquid assets to assets(LAA) The proportion of liquid assets to total assets Liquid assets to deposits (LAD) The proportion of liquid assets to total deposits Capital management The proportion of total capital to total assets (leverage ratio)	Loans to deposits (LD)	The proportion of total loans to total deposits	
Liquid assets to deposits (LAD) The proportion of liquid assets to total deposits Capital management The proportion of total capital to total assets (leverage ratio)	Liquid assets to assets(LAA)	The proportion of liquid assets to total assets	
Capital management capital to assets (CA) The proportion of total capital to total assets (leverage ratio)	Liquid assets to deposits (LAD)	The proportion of liquid assets to total deposits	
capital to assets (CA) The proportion of total capital to total assets (leverage ratio)	Capital management		
	capital to assets (CA)	The proportion of total capital to total assets (leverage ratio)	
Capital to loans(CL) The proportion of total capital to total loans and advances	Capital to loans(CL)	The proportion of total capital to total loans and advances	
Capital to net loans(CNL) The proportion of total capital to net loans and advances	Capital to net loans(CNL)	The proportion of total capital to net loans and advances	
Capital to deposits(CD) The proportion of total capital to total deposits	Capital to deposits(CD)	The proportion of total capital to total deposits	

LnCL, LnCNL and LnCD) after log transformation have been found normal and therefore it is fit for analysis of parametric tests (Table 2). Thus, the independent t-test has been applied. As per Field (2005), if the homogeneity of variance is fulfilled using Levene's test of homogeneity of variance, t- values corresponding to equal variance assumed should be taken and if the homogeneity of variance is violated, t values of equal variances not assumed should be taken. The homogeneity of variance was violated in ROE and LnCI variables. Thus, we used the values of the t-tests corresponding to equal variances not assumed for these variables. And for the others, the t-tests corresponding to equal variances assumed have been used. Assumptions of interval scale and independence is automatically fulfilled as variables are measured using ratio scales. Since, eleven parameters were not found normal at both label and log transformation, we used the non parametric Mann-Whitney test compare performance parameters among public and private sector banks.

RESULTS AND DISCUSSION

The results of data analysis on the differences of the financial performance measures considering the ownership structure of commercial banks is presented in Table 3.

Profitability

Return on assets (ROA)

On average, private sector commercial banks had significantly greater return on assets (Mean = 2.52%, SD = 0.8%) than public sector commercial banks (M = 1.57%,

Parameter	Public sector	Private sector	Mean difference
	average (STDEV)	average (STDEV)	(Private- public)
ROA	1.57(1.5)	2.52(0.8)	0.96
ROE	22.2(22.3)	21.4(7.76)	-0.8
NIM	2.73(0.97)	4.75(0.63)	2.02
NNIM	2.91(0.98)	3.35(0.33)	0.44
NIA	2.98(0.7)	3.74(0.72)	0.76
ОН	8.8(93.42)	7.28(21.09)	-1.52
CI	60.3(31.96)	50.9(11.33)	-9.34
GEA	0.95(0.35)	1.37(0.28)	0.41
SEA	0.79(0.1)	0.99(0.08)	0.21
NPL	30.2(13.1)	10.7(4.32)	-20
PNPL	60.7(23.2)	45.2(15.2)	-15
PL	15.5(3.42)	4.14(0.86)	-11
PA	7.22(1.61)	2.58(0.5)	-4.6
LD	78.4(15.3)	82(5.2)	3.54
LAA	34.5(11.2)	34.4(3.67)	-0.1
LAD	49.3(16.3)	45(4.97)	-4.3
DD	35.8(4.18)	26.1(1.04)	-9.8
CA	7.22(1.94)	12.8(1.67)	5.58
CL	16(6.75)	20.6(3.2)	4.6
CNL	19(7.48)	21.5(3.12)	2.48
CD	10.9(2.84)	17.3(3.28)	6.43

Table 2. Descriptive statistics of public and private sector commercial banks in Ethiopia from 2001 to 2008.

SD = 1.5%). Thus, private sector banks had significantly higher level of effectiveness in utilization of assets to generate profits than their public counterpart as measured by ROA during the study period.

Return on equity (ROE)

On average, public sector commercial banks had greater return on equity (Mean = 22.2%, SD = 22.3%) than on average, public sector commercial banks had greater return on equity (Mean = 22.2%, SD = 22.3%) than private sector commercial banks (M = 21.4%, SD = 7.76%). But this difference was not significant.

Net interest margin (NIM)

On average, private sector commercial banks had significantly greater NIM (Mean = 4.75%, SD = 2.02%) than public sector commercial banks (M = 2.73%, SD = 0.97%). Thus, private sector banks had significantly higher level of profit generating ability from interest earning investments than their public counterparts as measured by NIM during the study period.

Non Interest Income Margin (NNIM)

On average, private sector commercial banks had greater

NNIM (Mean = 3.35%, SD = .33%) than public sector commercial banks (M = 2.91%, SD = 0.98%). But this difference was not significant. Generally the disparity of public sector bank profit performance is higher than private sector banks. This may be due to size differences. Private sector banks have performed better in generating profits from overall operation and interest earning activities than public sector banks. And this findings is consistent with private banks been more profitable than public banks due to high NIM and low NPL (Laporta, 2002; Micco et al., 2004). This could be attributed to their efficiency in properly identifying feasible projects and finance them. This further shows that sound credit management is the key for the profitability for the banking sector. Banks are major actors in the financial system as financial intermediary. Although the ROA performance of private banks was better, there was no significant difference among public and private banks as far as profitability measured in terms of ROE. This may be because of the cost management of private banks were not as good as to public banks particularly in cost to assets ratios. That is, the higher costs incurred by private banks could have prohibited them to transfer the benefits of creating higher profits that they had on interest earning activities to their stockholders. Private sector banks had higher NIM from public sectors. This may be due to higher interest rates charged on the loans provided to them by providing value adding services to their customers. There was no significant difference in generating of

Model	Financial measure	t/ Z	P - value
	Profitability		
MU	ROA	-1.998	0.048
Independent t-test	ROE	0.317	0.756
Independent t-test	NIM	-5.672	0.000*
Independent t-test	NNIM	-1.153	0.253
	Efficiency		
Independent t-test	NIA	-2.019	0.048*
MU	ОН	-0.605	0.545
Independent t-test	LnCl	0.423	0.678
MU	GEA	-2.946	0.003*
Independent t-test	SEA	-2.923	0.005*
	Asset quality		
Independent t-test	LnNPL	6.341	0.000*
Independent t-test	PNPL	2.391	0.02*
MU	PL	-5.795	0.000*
MU	PA	-5.227	0.000*
	Liquidity		
MU	LD	-0.481	0.631
MU	LAA	-0.419	0.675
MU	LAD	-1.209	0.227
	Capital adequacy		
MU	CA	-0.853	0.394
Independent t-test	LnCL	0.562	0.576
Independent t-test	LnCNL	-2.831	0.006*
Independent t-test	LnCD	-1.57	0.122

 Table 3. Comparison among public and private sector commercial banks of Ethiopia: Independent t-test and

 Mann- Whitney (MU) test.

*values significant at 5%.

of noninterest income given ownership patterns. This could signify that bank customers did not have specific preference on the type of banks to get their service. This further could imply that services provided by Ethiopian banks are identical irrespective of ownership structure. In this category, banks could get potential by crafting strategies to gain competitive edge by providing value adding fee based services.

In general, the main purpose of banks as the main actors in the financial system is financial intermediation. If banks could be able to perform the financial intermediation properly by getting proper returns, they can contribute to the financial sector growth and to the economic development at large by providing the resources mobilized to good projects which possible increase employment and standard of living. Hence, public sector banks should improve their performance in this regard and the government should encourage establishment and expansion of private sector banks.

Efficiency

Non interest expenses to average assets (NIA)

On average, public sector commercial banks had significantly greater NIA performance (Mean = 2.98%, SD = 0.7%) than private sector commercial banks (M = 3.74%, SD = 0.76%). Thus, public sector banks had significantly higher level of efficiency as the proportion of noninterest expenses to average assets is less than their private counterparts.

Overhead (OH)

On average, private sector commercial banks had greater OH performance (Mean = 7.28%, SD = 21.09%) than public sector commercial banks (M = 8.8%, SD = 93.42%). But this difference was not significant.

Cost to income (CI)

On average, private sector commercial banks had greater productivity performance (Mean = 50.9%, SD= 11.33%) as the unit of costs incurred to get one unit of revenue is lesser than public sector commercial banks (M = 60.3%, SD = 31.96%). But this difference was not significant.

General expenses to assets (GEA)

On average, public sector commercial banks had significantly greater GEA performance (Mean = 0.95%, SD = 0.35%) than private sector commercial banks (M = 1.37%, SD = 0.28%). Thus, public sector banks had significantly higher level of efficiency than their private counterpart as measured by GEA during the study period.

Staff expenses to assets (SEA)

On average, public sector commercial banks had significantly greater SEA performance (Mean = 0.79%, SD = 0.10%) than private sector commercial banks (M = 0.99%, SD = 0.21%). Thus, public sector banks had significantly higher level of efficiency than their private counterpart as measured by SEA during the study period. Public sector banks have performed significantly well in managing noninterest expenses, general and staff expenses. Public banks were better in keeping their costs lower than private banks particularly in cost to assets category. This shows that public sector banks are better in maintaining their costs low in proportion to the amount of assets held as compared to private sector banks. This could be because of the size of pubic banks were bigger and they were getting the benefit of economies of scale. But there was no any significant difference in cost to income category, which is one of the significant classes of bank productivity measures. This may show that the economies of scale obtained were not repeated in generating income from the resources used. This implies that there is inefficiency and wastage of resources in public sector banks to create revenues as compared to private banks in generating revenues for each unit of costs spent to create them. One of the inefficiencies is the presence of high nonperforming loans which increases dramatically their noninterest expenses, in turn increase the total costs incurred to run their operations and hampers the profitability at last.

Although public banks had better performance in managing their costs as measured by costs to assets category, the overall profit performance of public banks was lesser than private banks. That means the costs incurred in public banks were not beneficial in getting the required profit though they are minimum.

It may be because of the quality of human resource and attractiveness for the remuneration paid by public banks which resulted lesser bank cost productivity results. And it could be the concern for further study.

Asset quality

Nonperforming loans (NPL)

On average, private sector commercial banks had significantly greater NPL performance (Mean = 10.4%, SD = 4.32%) than public sector commercial banks (M = 30.2%, SD = 13.1%). Thus, private sector banks had significantly higher level of asset quality than their public counterpart as measured by NPL during the study period.

Provisions to NPL (PNPL)

On average, public sector commercial banks had significantly greater PNPL performance (Mean = 60.7%, SD = 23.2%) than private sector commercial banks (M = 45.2%, SD = 15.2%). Thus, public sector banks had significantly higher level of asset quality than their private counterpart as measured by PNPL during the study period.

Provisions to loans (PL)

On average, public sector commercial banks had significantly greater PL performance (Mean = 15.5%, SD = 3.42%) than private sector commercial banks (M = 4.14%, SD = 0.86%). Thus, public sector banks had significantly higher level of asset quality than their private counterpart as measured by PL during the study period.

Provisions to assets (PA)

On average, public sector commercial banks had significantly greater PA performance (Mean = 7.22%, SD = 1.61%) than private sector commercial banks (M = 2.58%, SD = 0.5%). Thus, public sector banks had significantly higher level of asset quality than their private counterpart as measured by PA during the study period. Private sector banks are significantly better in credit management than public sector banks. This could show the efficiency in evaluating and deploying resources in good projects which are profitable and the contributing in the growth of investment and economy at large. And the amount of resources that were tied up to absorb the potential loss from uncollectablity of loaned funds is significantly lesser in the case of private sector banks. Hence, the resources of private sector could be used in more efficient manner than their public sector counterparts.

Liquidity

Loans to deposits (LD)

On average, private sector commercial banks had greater LD performance (Mean = 82%, SD = 5.2%) than public sector commercial banks (M = 78.4%, SD = 15.3%). But this difference was not significant.

Liquid assets to assets (LAA)

On average, public sector commercial banks had slightly greater LAA performance (Mean = 34.5%, SD = 11.2%) than private sector commercial banks (M = 34.4%, SD = 3.67%). But this difference was not significant.

Liquid assets to deposits (LAD)

On average, public sector commercial banks had greater LAD performance (Mean = 49.3%, SD = 16.3%) than private sector commercial banks (M = 45%, SD = 4.97%). But this difference was not significant.

As far as liquidity is concerned, there was no significant difference among public and private sector banks. And the liquidity position could be rated as excess as it is far above the requirement of the regulatory authority. The amount of liquid assets that was held by commercial banking sector from 2001 to 2008 was 46.6%. In Ethiopia, For the purpose of meeting the liquidity requirement, any licensed bank shall maintain liquid assets of not less than 25% (twenty five percent) of its total current liabilities as per NBE liquidity requirement of banks (National Bank of Ethiopia (NBE), 2008). Thus, the liquidity position could be rated as excess as it is far above the requirement of the regulatory authority.

This could be because of the stringent liquidity requirement by the regulatory body (NBE, the central bank of the country), or low demand for bank loans, difficulty in loan approval procedures of banks, unavailability of feasible projects and the like. Thus, one can need to analyze the reasons for such excess liquidity as excess cash that is held is unproductive and could lead to reduce the profitability of banks.

Capital adequacy

Capital to assets (CA)

On average, private sector commercial banks had greater CA (Mean = 12.8%, SD = 1.67%) than public sector commercial banks (M = 7.22%, SD = 1.94%). But this difference was not significant. Thus, private sector banks did not had significantly higher level of capital availability for each unit of total investment showing the ability to

meet sudden losses than their public counterpart as measured by CA during the study period.

Capital to loans (CL)

On average, private sector commercial banks had greater CL (Mean = 20.6%, SD = 3.2%) than public sector commercial banks (Mean = 16%, SD = 6.75%). But this difference was not significant.

Capital to net loans (CNL)

On average, private sector commercial banks had significantly greater CNL (Mean = 21.5%, SD = 3.12 percent) than public sector commercial banks (M = 19%, SD = 7.48%). This signifies that the amount of capital held for each unit of net loans provided was significantly greater by private banks. Thus, they can better cope up future losses due to no collection of loans.

Capital to deposits (CD)

On average, private sector commercial banks had greater CD (Mean = 17.3%, SD = 3.28%) than public sector commercial banks (M = 10.9%, SD = 2.84%). But this difference was not significant.

Generally, the capital availability to meet unforeseen losses for private sector banks is significantly higher from public banks when capital is compared in relation to each unit of net loans. Thus, private sector banks are better to absorb any potential loss arising from operations.

Conclusions

The purpose of the study was to examine the relationship of determining the different attributions of the performance measures of Ethiopian commercial banks in their ownership patterns. The study was conducted using financial statements of public and private commercial banks in Ethiopia from 2001 to 2008 to gain knowledge whether ownership structure is the determinant factor on the performance Ethiopian commercial banks.

Private sector banks had greater profitability measures from their public sector counterparts as measured by return on assets and net interest income margin. This shows that the effectiveness in utilization of assets and the ability of generating profits from interest earning investments were better in private sectors as compared to public sector banks. Thus, profitability of overall operations and the bank's interest-earning business was better in private sector banks as compared to public sector banks. Thus, ownership structure had an important impact on the profitability of commercial banks in Ethiopia. And this is consistent with the theory of private investment is better in effectively allocating scarce resources. Public sector banks were significantly better in cost management as they are able to keep the proportion of costs to assets lower from private sector banks. Public sector banks were better in noninterest expenses, general and staff expenses management. This need further research to rectify the reason for this result as it is not reflected in the overall profitability.

Private sector banks were significantly better in credit management than public sector banks. This could show the efficiency in evaluating and deploying resources in good projects which are profitable and the contributing in the growth of investment and economy at large. This further has an effect to improve profitability, asset and capital growth, less amounts of resources that is to be tied up to absorb the potential loss from uncollectability, sound financial condition for the particular sector and to the country's financial system as a whole. Hence, the resources mobilized in the form of deposits of private sector could be used in more efficient manner than their public sector counterparts. As far as liquidity is concerned, there was no significant difference among public and private sector banks and the liquidity position could be rated as excess as it is far above from the requirement of the regulatory authority.

And capital adequacy is significantly better in private sectors as shown by capital to net loans ratios showing the ability of private banks is better in meeting unexpected operational losses as compared to public sector banks.

Generally, private investment in commercial banking revealed better financial performance results as compared to public sector banks with respect to profitability, asset quality and capital adequacy measures and public sector banks are better in cost management with respect to cost to assets ratio categories. However, there is no significant difference that is exhibited among private and public sector Ethiopian commercial banks with respect to liquidity measures.

REFERENCES

- Berglof E, Roland G (1998). Soft Budget Constraints and Banking in Transition Economies. J. Comparat. Econ., 26 (1).
- Clarke G, Cull R, D'Amato L, Molinari A (1999). The Effect of Foreign Entry on Argentina's Domestic Banking Sector. The World Bank, Policy Research Working Paper Series. p. 2158.
- Demestz H, Lehn K (1985). The Structure of Corporate Ownership: Causes and Consequences. J. Polit. Econ., 93: 1155-1177.
- Dewatripont M, Maskin E (1995). Efficiency in Centralized and Decentralized Economies. Rev. Econ. Stud., 62(4).
- Field A (2005). Discovering Statistics Using SPSS. (2nd eds). Sage publications, United Knigdom. pp. 63-65.
- Kiyota K, Peitsch B, Stern MR (2007). The Case for Financial Sector Liberalisation in Ethiopia. Gerald R. Ford School of Public Policy, The Unversity of Michigan. p. 4.
- LaPorta R, Lopez-de-Silanes F, Shleifer A, Vishny R (2002). Government Ownership of Banks. J. Finance, 57: 256-301.
- Leech D, Leahy J (1991). Ownership Structure, Control Type Classifications and the Performance of Large British Companies. Econ. J., 101: 1418-1437.
- Micco A, Panizza U, Yañez M (2004). Bank Ownership and Performance, Inter-American Development Bank, Research Department. November, Working, p. 518.
- Pedersen T, Thompson T (1997). European Patterns of Corporate Ownership: A Twelve Country Study. J. Int. Bus. Studies, 28(4): 759-778.
- Sapienza P (2004). The Effects of Government Ownership on Bank Lending. J. Financial. Econ., 72(2): 357-384.
- Schmidt KM (1996). The Costs and Benefits of Privatization: An Incomplete Contracts Approach. J. Law Econ. Org., 12(1).
- Sumon KB, Dimova R (2003). Does Ownership Always Matter? Evidence from the Indian Banking Industry. J. Global Financial Mark. Spring, pp. 33-43
- Vickers J, Yarrow G (1989). Privatization: An Economic Analysis. Cambridge: MIT University Press. pp 197-227.
- Vickers J, Yarrow G (1991). Reform of the electricity supply industry in Britain: An assessment of the development of public policy. Eur. Econ. Rev., 35: 485- 495.
- Zeitun R, Tian GG (2007). Does Ownership Affect a Firm's Performance and Default Risk in Jordan. Corporate Gov., 7(1): 66-82.