Emerging Markets Queries in Finance and Business

Do Romanian Banking Institutions Create Shareholder Value?

Munteanu Anca\textsuperscript{a,b,*}, Brezeanu Petre\textsuperscript{a}

\textsuperscript{a} The Bucharest University of Economic Studies, Bucharest, 010071, Romania
\textsuperscript{b} “Petru Maior” University of Târgu Mureș, Nicolae Iorga street, no. 1, 540080, Romania

Abstract

This study aims at identifying the evolution of some of the key value based indicators in the case of Romanian listed banks. In particular we compute value based measures like Residual Income RI and Market Value Added MVA but also traditional measures like Earnings per Share EPS and Price to Earnings ratio PER in order to have a detailed view on the evolution of shareholder value creation in the banking industry for last seven years 2005-2011. As results suggest BRD represents the greater shareholder value creator in the case of the listed banks. On the other hand EBS is the greater value destroyer. The other listed banks TLV and BCC can be characterized as value preserver as they don’t destroy nor create shareholder value.

Keywords: banking performance, shareholder value, residual income, market value added, EPS, PER

1. Introduction

The concept of shareholder value creation reflects the fundamental principle of successful financial management: to maximize the market value of investor’s wealth. As a result, the most successful investment or budgeting decision will reflect themselves in the growth of the market value of equity of the firm. Establishing market value or firm growth nevertheless implies the process of valuation: determining value and value drivers is essential considering the simple postulate of a sound investment: do not pay more for an asset than it’s worth.

Email address: anca.munteanu@ea.upm.ro
Following Damodaran 2002, 2010a, 2010b three approaches to valuation can be identified: intrinsic valuation, relative valuation and contingent claim valuation. The intrinsic valuation elaborates on the principle that every asset that generates cash-flows is characterized by cash-flow potential and risk. The major criticism of this view relies upon the fact that when significant uncertainty about the future exists estimating the intrinsic value becomes difficult and pointless. In the case of relative valuation, the value of an asset is derived from the pricing of a 'comparable' assets, standardized using a common variable such as earnings, cash-flows, book value or revenues Damodaran, 2002:9. The result of this approach on valuation represents a judgment about how much an asset is worth by looking at what the market is paying for similar assets.

If the market is correct, on average, the values obtained by using the intrinsic valuation and the relative valuation should converge. The third approach, the contingent claims approach, values assets as options if the payoffs are a function of a value of an underlying asset. The fundamental hypotheses that sustains the use of option pricing models relies on the possibility that discounted cash flow can underestimate the value of assets that provide payoffs contingent on the occurrence of an event.

Value based performance assessment can represent the raw material for both intrinsic e.g. excess returns models and relative valuation approaches e.g. standardized Market Value Added. This study aims at identifying the evolution of some of the key value based indicators in the case of Romanian listed banks. In particular we compute value based measures like Residual Income RI and Market Value Added MVA but also traditional measures like Earnings per Share EPS and Price to Earnings ratio PER in order to have a detailed view on the evolution of shareholder value creation in the banking industry for last seven years 2005-2011.

2. Literature review

Investigating the performance of banking institutions represents major inters for practitioners, supervisors and scholars considering banks contributions to the optimal allocation of financial resources in the real sector. In the particular case of Romanian economy recent studies Dragotă et.al 2008, Dragotă et. al., 2011 show that bank loans represent the main external source of financing exceeding by far the role of the capital market. The banking system finances nearly all Romanian listed companies on Bucharest Stock Exchange or on RASDAQ as the short term loan represents the most preferable instrument of debt outgrowing the values of medium and long term bank credit.

The international research literature quantifies bank performance by appealing to the notion of profitability which can be captured by traditional indicators or by constructing value added indicators. Studies like Kosmidu et. al., 2007, Ben Naceur, and Omran, 2011, Olson and Zoubi, 2011 use traditional measures when explaining the evolution and determinants of financial performance. Most of the traditional banking performance measures directly relate to the current net income of a business entity with equity, total assets or use net interest margin. Common used measures are: ROA – reflecting the capacity of the bank management to transform assets into net earnings, ROE – measures the performance from the perspective of the equity holders and NIM – for measuring current and future profitability defined by the difference between a depository institution’s interest income and interest expenses as a percentage of total assets. As seen each of these indices measure a different aspect of performance and thus must be considered in conjunction with each other but also with other metrics.

On the other hand, economic measurements of profit like residual income and economic value added gained increasing popularity in the field of performance assessment for financial institutions. Uyemura et. al., 1996 introduced the first comprehensive literature for EVA. Also, the study presented EVA's superiority over traditional performance measurements as it exhibits stronger correlation with bank market values than traditional accounting measures like ROA and ROE.

Fiordelisi, 2007 develops a new measure of banking performance – shareholder value efficiency – based on the maximum possible EVA given particular inputs and outputs. Using financial information from banks operating in advanced European economies in the period 1997-2002, shareholder value efficiency is found to
be the most important factor that explains value creation in European banking, cost and profit efficiency having only a marginal influence.

Fiordelisi and Molyneux, 2010 investigate the value creation process in banking for 12 countries from EU-15 area, period 1998-2005. The study uses as bank performance measure EVA and implies that shareholder value creation is a linear function of various bank-specific, industry-specific and macroeconomic factors. The conclusions show that shareholder value has a positive relationship with cost efficiency changes while economic profits are linked to revenue efficiency changes.

Another line of research views financial performance as an expression of efficiency and productivity. Data envelopment analysis DEA is used to address a large variety of issues. The survey of Fethi and Pasiouras, 2010 comprising 196 studies show that recent DEA studies have examined almost all of the banking sectors around the world. Some of the most debated topics reflect: the determinants of efficiency Casu and Giardone, 2004, 2006; Ariff and Can, 2008; the relationship between efficiency and stock returns Erdem and Erdem, 2008, impact over efficiency of bank ownership and bank size Ataullah and Le, 2004; Sufian, 2011, the relationship between liberalization and efficiency Tzionas et al., 2003; Rezitis, 2006; Brissimis et al., 2008, corporate events and efficiency Hahn, 2007; Al-Sharkas et al., 2008.

The research literature that focuses on Romanian banking institutions captures both lines of research. Nistor and Ulici, 2009, use market based measures of performance market capitalization, price per share, price to book ratio, EPS, PER, ROE in order to capture the impact of the financial crisis on the evolution of Romanian listed banks for the period 2006-2009. Also, Nistor and Ulici, 2010, use a GARCH model to estimate the relationship between the performance of Romanian bank stocks and that of the giant Lehman Brothers in order to discover that the positive but statistically insignificant impact of the latter.

Most performance studies focus on the issue of X-efficiency. For example Nitoi 2009 analyzes the efficiency and productivity of 15 commercial Romanian banks from 2006-08 using DEA by focusing on identifying the relatively best performing and the relatively worst performing banks;

Andrieş and Cociriş 2010 use the frontier analysis to compute the efficiency scores of the main banks in Romania, 6 banks, the Czech Republic 6 banks and Hungary 6 banks for the period 2000-2006 and offer a comparative evolution of banking sector performance for the three countries.

Roman and Šargu 2012 use DEA for analyzing Romanian banking sector efficiency evolution for the period 2002-2009 and conclude that foreign banks have been more efficient than their domestic peers, as foreign banks can benefit from the experience and superior know-how of their parent banks.

3. Methodology

The main objective of this study is to provide a detailed perspective regarding the evolution of Romanian banking institutions listed at Bucharest Stock Exchange BSE. Towards this end economic RI and MVA but also traditional EPS, PER performance measures are used.

RI represents a simplified version of the Economic Value Added EVA indicator. The key principle of EVA is to subtract from the Net Operating Profits after Tax NOPAT all debt and equity charge, thus providing shareholders with a threshold for a minimum level of operating profits. Unlike traditional measures, EVA raises attention to the issue highlighted by Modigliani and Miller 1958: not only debt holders expect a certain return but also shareholders of the bank expect a specific rate of return for assuming the risk of investing in the bank. The simplified version of EVA, RI assumes the exact calculation principle without adjusting for the accounting value of net income.

We propose the following calculation for RI following Uyermura et al 1996 and Costa 2012:

$$Residual\ Income_{t} = Net\ Income_{t} \ast (Ke_{t} \ast Risk\ Capital_{t})$$ (1)
Where \( K_e \) reflects the cost of equity and Risk Capital reflects the capital needed in order to account for the riskiness of the specific banking operation. Mainstream financial literature suggests the estimation of the cost of equity by using a Capital Asset Pricing Model (CAPM), there remains a lot of controversy regarding the application of this method for emerging markets considering the high volatility of this particular type of financial market. Also, because of the fact that from a maximum of 42 banking institutions only 4 banks are listed the computation of CAPM has no sense. In order to have reliable estimation on the cost of equity this study used as a proxy a yearly average of the interbank market rate ROBOR starting with the values from 2004. This choice is supported by a similar study for EVA in emerging markets (Costa, 2012) that suggests the using of the interbank market rate as a good cost of equity benchmark.

In the case of banking institutions there is a fundamental difference between cash capital shareholder equity and risk capital. Risk capital is specific to the risk profile of the bank and is determined by the structure of the assets portfolio. Basel II Accord established the minimum 8% ratio coefficient between equity capital and risk weight assets. In order to arrive to the value of risk capital this study uses bank specific Tier1 ratio to compute the value of risk-weight assets:

\[
T_{ier1_t} = \frac{\text{Cash Capital}_t}{\alpha_t \text{Total Assets}_t} \tag{2}
\]

\[
\text{Risk Capital}_t = \frac{\text{Cash Capital}_t}{\alpha_t} \tag{3}
\]

where \( \alpha_t \) represents the bank specific risk-weigh that accounts for the structure of the asset portfolio.

Based on market data, MVA reflects the value how much shareholder wealth a firm has created/destroyed over a period of time. The study uses the following calculation formula:

\[
\text{Standardized MVA}_t = \frac{\text{Market value of equity}_t - \text{Book value of equity}_t}{\text{Average number of shares}_t} \tag{4}
\]

EPS reflects the total earnings or net income divided by its outstanding shares. This indicator presents the value of profit that is contained by a share. The main critique of this indicator regards the fact that EPS ignores the capital required to generate a certain amount of profit.

PER is calculated as the market value of a share divided by the earnings per share. The multiplier PER shows it shows how much investors are willing to pay per money unit of earnings. Also this is a good benchmark for making performance comparisons between companies in the same industry.

The study uses financial data from the balance sheet and profit and loss account provided by the official site of each banking institution. Stock market data price of shares are obtained from the site www.tranzactiibursiere.ro. The time spam covered is 2005-2011.

3. Results

EPS is a wide used stock performance indicator that best reflect the trend of the earnings value over a larger period of time. This indicator appeals to the individual investor that is interested in knowing the amount of earnings that are to be allocated per share. Figure 2 presents the evolution of the EPS indicator. For the seven years taken into consideration, the best performing year is 2008 when all the four stocks reach a maximum value of earnings.

In the long run, BRD offers the steadiest earnings per share while BCC seems to have the most unpromising results. The case of EBS is interesting because it seems to be the most attractive stock on the market in the short run years 2008, 2009, 2010, but the year 2011 EBS reports the highest loss per share.
For the years 2005-2008 TLV and BCC stocks incorporate insignificant earnings, but as TLV trend is to increase the value of those earnings, BCC records loss in 2010 and 2011. The only banking institution from the four listed on BSE that displays a positive increasing trend is TLV. This situation shows that for the listed banking institutions the value of reported earnings has a negative trend: two institutions report loss in the year 2010 and 2011, and two report small amounts of profit over the same period.

The value of PER reflects the ratio between the price of stock and the earnings attributed to the stock. Usually investors look for the smaller value of PER as this figure also shows how much you have to pay in order to obtain 1 RON of profit. Also a small value of PER indicates that the stock is undervalued and it forecasts future profit opportunities. The link between PER and EPS has also to be examined as earnings can suffer from manipulation. The higher the value of EPS the smaller the value of PER as a consequence in the long run the EPS can be misleading.

Except for BCC which reports loss between 2007-2011 the PER ratio registers values that fluctuate between 5 and 19 in the case of the remaining banking institutions. This figures place the three Romanian listed banking institutions in the undervalued 0-10 and fair value 11-17 stock category. TLV registers the highest PER values 112,7 in 2005 and 127,1 in 2006 indicating an overvaluation of the stock price concerning the intrinsic capacity to generate future benefits. In the period 2005-2007 both BRD and BCC stock prices are at a fair value. Starting with 2008 until 2010 the prices for BRD drop and reflect the possibility of good investment decisions for future shareholders as the earnings figure suggest steady results. The PER for EBS suggest negative investment results as in the year 2011 EBS displays the highest negative value.

Residual income RI reflects the value created for the investors over one period of time after deducting from the operating income the cost of capital. Most performance assessment research literature focuses on the value of earnings when it comes to quantifying performance. But the accounting value of earnings doesn’t take into account the return asked by investors for sustaining the operational activity of one organization. As Modigliani and Miller 1958 point out in their seminal article: not only debt holders expect a certain return but also shareholders of the bank expect a specific rate of return for assuming the risk of investing in the bank. Residual income is a measure of excess return and reflects the income generated over one period of time that is entitled to shareholders. In order to have a comparative figure of the RI measure we divided the obtained value by the bank total assets. This “standardized” value of RI reflects the excess return generated by a banking institution over one period of time proportional to the value of assets employed. This measure can be also considered as an efficiency measure as it basically reports the effects obtained in a fiscal year to the efforts undertook in that
period. The result presents the percentage of assets that corresponds to one period of excess return. From this point of view BRD is the most profitable investment as in 2008 manages to create a maximum shareholder value of almost 20% of the value of total assets used. Also, for the entire seven years the value of excess return obtained by BRD presents better ratios when compared to the other Romanian listed banks.

The value of standardized RI reflects that for the years 2005-2011 some of the listed commercial banks managed to create shareholder value while on the other hand some are shareholder value destroyers. BRD remains the only company that has a consistent evolution pattern of value creator while the other listed banks manage only in some of the years not to destroy the value invested by the shareholders. The years 2009-2011 are of particular interest since most listed banks don’t manage to report a net income figure sufficient to compensate for the cost of equity. As Figure 3 reflects the value of RI is below or almost 0 for three out of four of the listed banks.

Market Value Added MVA indicates the difference between the market value and the book value of the banking institution. This difference reflects the surplus value created by management over one period of time, value that reflects the anticipation and degree of trust that the investors on the capital market have regarding the prospects of the company. By dividing the MVA to the number of outstanding shares we computed a standardized form of MVA that allows for comparisons. Also in this case BRD presents the best evolution in the sense that for the entire period BRD obtains a market value that exceeds the book value and divided by the numbers of shares this surplus value exceeds the surplus value created by the other listed banks. On the other hand, EBS is most definitely a shareholder value destroyer as in the years 2009-2011 the book value of equity overtakes the market value of equity. The evolution of the other listed shares TLV and BCC presents values that oscillate near the value 0. In this case the two banks can be considered value preserves as they don’t manage to create or to destroy shareholder value.

4. Conclusions

The paper presented four different performance metrics EPS, PER, RI, MVA that aim at identifying shareholder value creation as a measure of market value maximization of investor’s wealth. Using market based performance indicators we obtain a more real image regarding the value evolution of Romanian listed banks. This type of measure has the advantage of incorporating investor’s decisions and perceptions in time. Also, market based measures avoid some of the biases introduced by accounting policies over figures as earnings or other profitability indicators.
This study debates upon several performance measures and proposes the calculation of an adjusted metric: standardized residual income. On the one hand this metric expresses the idea of Modigliani and Miller 1958 that also the shareholders expect a specific rate of return for assuming the risk of investing; by drawing upon Uyermura et al., 1996 we use a computation methodology that is tailored for banking institutions. On the other hand we propose a efficiency ratio in order to obtain a value that is comparable between banks: result presents the percentage of assets that corresponds to one period of excess return.

As a novelty the study also offers a detailed image reflecting upon a seven years period 2005-2011 identifying the banking institutions that managed to create or to destroy shareholder value in the case of Romanian listed banks. Corroborating all computed measures, BRD represents the greater shareholder value creator in the case of Romanian listed banks. On the other hand EBS is the greater value destroyer. The other listed banks TLV and BCC can be characterized as value preserver as they don’t destroy nor create shareholder value.

Acknowledgement

This work was co-financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013; project number POSDRU/107/1.5/S/77213 „Ph.D. for a career in interdisciplinary economic research at the European standards”.

References


Fethi and Pasiouras 2010


Nistor, I. & Ulici, M., 2010. The impact of Lehman Brothers on Romanian banks listed on BVB, Finance - Challenges of the Future, University of Craiova, Faculty of Economics and Business Administration, vol. 1, issue 12, pp. 21-28


