

Banking Concentration Impact on Market Structure of Post-Soviet Country – Moldova

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Abstract

The new wave of mergers and acquisitions after the global financial crisis intensified the interest of policy makers and academics in bank concentration and competition and the role of the state in competition policies and regulations (policies and laws that affect the market structure and degree of competition). It is important to not only make sure that the banking sector is competitive, transparent and efficient but also stable.

The purpose of the study was to investigate and analyze the degree of concentration at the Moldovan banking market and its impact on competition and market structure of financial markets over the period of 2013-2017. Both structural and non-structural measurement approaches of concentration and competition along with the desk research, a case study and interviews with the financial sector professionals and independent expert were employed to address the research purpose.

The findings of the study indicate that in the developing country such as Moldova high concentration implies low competition levels and relationship between concentration and stability seems to be negative, meaning that high concentration results lower stability of this banking market. Banks in Moldova have the ability of extracting monopolistic profits from big interest rate spreads by setting less favorable prices to customers based on collusive and non-competitive behavior in a highly concentrated market. The competition level and market structure of this country results in high prices of financial product and low access to finance. Moldovan financial markets are bank dominated, characterized with a monopolistic banking structure, with leading roles of a few universal profile banking institutions, dominating not only the banking sector but also whole financial market.

Keywords: banking, competition, concentration, financial market, stability

JEL: G1, G2, G21, D4, G14

Introduction

Both academics and policy makers perceive and underline the essence of a smoothly functioning financial system for an economy (Levine, 2004; Bodie & Merton, 2005). The structure of the banking sector has long been the subject of policy interest centered mainly around a presumed tendency towards concentration and its effects upon competition, economic efficiency, bank profitability, financial and, consequently, macroeconomic stability.

The degree of banking market structure that shapes out competition and performance has been a “seriously debated topic”. The global financial crisis intensified the interest of policy makers and academics in bank concentration and competition and the role of the state in competition policies and regulations (policies and laws that affect the market structure and degree of competition). Some argue that increases in competition and financial innovation in markets, such as, subprime lending, produced financial turmoil. Others worry that the crisis and government support of the largest (big) banks raised banking concentration, correspondingly reducing competition and access to finance and conceivably contributing to future instability as a result of moral hazard problems associated with “too big to fail” institutions.

Competition in the banking system is desirable for efficiency, effectiveness and maximization of social welfare. Nonetheless, due to its significant roles and functions, there are some properties that distinguish banking from other industries. It is important to make sure that banking sector is not only competitive, transparent and efficient but also stable.

The outcomes of plentiful types of research have resulted in the existence of various bank concentration theories in the literature. These theories could be classified into pro concentration and cons concentration theories.

Literature covering the relationship between the structure of the banking sector and the level of competition and financial stability is classified according to two separate views with absolutely contradictory conclusions. They are positioned according to either backing the theory that banking concentration has a destabilizing effect (concentration-fragility or competition- stability hypothesis) or the opposite of it - a stabilizing effect (concentration-stability or competition-fragility hypothesis).

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Concentration indicates the degree of control of economic activity by big companies (Sathye, 2002). The increase in concentration levels could be because of significant size enlargement of the dominant firm(s) and/or significant size contraction of the non-dominant firm(s). Conversely, decrease in concentration levels could be because of significant size contraction of the dominant firm(s) and/or significant size enlargement of the non-dominant firm(s) (Athanasoglou, Brissimis, & Delis, 2005).

Supporters of the banking sector concentration state that enhancing economies of scale is the main trigger of realizing bank mergers and acquisitions resulting in increasing concentration. Such increased concentration promotes efficiency improvements (Demirguc-Kunt & Levine, 2000). Based on theoretical assumptions and research results of country comparisons, the low concentrated banking sector containing many small banks is deemed highly vulnerable to financial crises than the highly concentrated banking sector with several large banks. According to the “concentration-stability” and “competition-fragility” theory, high concentration in a banking sector lowers competition between banks and, consequently, decreases additional risk-taking incentives of those institutions resulting in low risk of default and vice-versa. Besides, they argue that larger banks are having better diversification abilities. So, banking markets composed by several large banks tend to be less fragile than banking markets with many small banks (Allen & Gale, 2004).

Concentrated banking markets are mainly characterized by high profitability, which decreases fragility of the whole system. High profits act as a buffer mechanism toward adverse shocks and perils in difficult times. Beside, monitoring of several large banks is easier than many small banks and the corporate control mechanism will be more effective of larger banks, resulting in decreasing risks of contagion in a concentrated banking system (Beck, Demirguc-Kunt, & Levine, 2003).

According to the opposite view, high concentration at the banking market increases the prices of financial services for consumers. In a concentrative and less competitive environment banks charge high interest rates on loans and low interest rates on deposits, maintaining high interest rate spreads and enjoying high profits. Also, there is evidence connecting high concentration to reductions of credit supply and access to finance for firms.

If concentration empowers banks with the ability of influence on the market, such circumstances will have impact on riskiness of bank assets and rise both the expected rate of return on assets and the standard deviation of those returns (Beck, Demirguc-Kunt, & Levine, 2004). The rationale of this connotation is that high power of influence of banks sourced by higher market concentration creates basis for low socio-economic welfare and, consequently, high concentration is eminently undesirable. Aside, the concentrated banking market rises bank fragility incentives due to the fact that larger banks are usually granted by support subsidies from government, based on “too big to fail” policies that small banks do not receive (Boyd & Runkle, 1993).

Supporters of the “concentration-fragility” view do not agree with the statement that it is easier to monitor several large banks than many small ones. As generally the size of such conglomerates is presented in complexity, monitoring and supervising of activities of large banks become much more difficult than those of small ones. This type of relationship underlines and rises positive connection between concentration and fragility. Theoretical results highlight that financing activities of larger banks become more expensive due to the fact that their monopolistic market power increases the opportunity costs of capital (Smith, 1998). Thus, lack of proper competition in banking market negatively affects economic development.

There is a continuing dispute in academic literature on the relationships between competition, concentration and stability in the banking sector. According to the “concentration-stability” or “competition-fragility” theory, the relationship between concentration and stability is positive but negative between concentration and competition, and competition and stability. On the one hand, there are academics and policy makers who believe that more competition in banking results in greater instability and more market failures, other things being equal. This theory suggests that banks operating in a highly concentrated market (or in a market that restricts entry) will earn profits that can serve as a buffer against fragility and as an incentive against excessive risk taking. More competition, which puts more pressure on profits, is thought to create higher incentives for banks to take greater (potentially excessive) risks, resulting in greater instability. This theory predicts that deregulation, resulting in more entry and competition, would ultimately lead to more fragility. It also holds that a more concentrated banking system might reduce the supervisory burden of regulators, thus enhancing overall stability.

The opposing view is that a more concentrated banking structure in fact results in more bank fragility, supported by concentration-fragility or competition-stability theory. According to this theory, there is negative relationship between concentration and competition and concentration and stability, but positive relationship between competition and stability. In such an environment fragility of the market is increased due to banks' power to boost interest rates they charge to firms raising firms default riskiness connected to a higher probability of non-performing loans, which will result in expensive financial product and limited access to finance, consequently, affecting economic processes. Beside, high

concentration of larger firms is the precondition for increased contagion or systematic risk. In the highly concentrated markets, huge conglomerates become very important for the sustainability of the market and it is presumed that such banks will receive larger subsidies via “too big to fail” policies, thereby intensifying moral hazard problems by additional risk-taking incentives and, consequently, increasing banking system fragility. This intention destroys the argument of less need for supervision of big banks in a highly concentrated market with the evidence that highly concentrated banking systems with conglomerates offering a wide array of services, make them more complicated and difficult to monitor. On the same line high level of competition makes behavior of banking institutions more transparent and conventional with increased attention to risk management, thus ensuring sustainability of the financial system.

As shown in the recent financial turmoil, regulation affects the resilience of financial institutions to a crisis. Countries with strong regulatory and institutional frameworks have been less prone to financial distress. A well-designed regulatory framework can also help reduce the potential detrimental effects of competition on financial stability. In particular, by improving banks' risk taking incentives. In other words, regulation can make banks less inclined to take on excessive risk. At the same time, ensuring transparency and equally treatments of all participants will promote high performance of the overall sector and economic development.

Research Methodology and Data Analysis Instruments

Being empirical by nature, the research shaped the logic and instruments through which objective and measurable data was collected and analyzed. Intensive and comprehensive review of existing theories enabled us to formulate research questions and hypothesis, define relevant data and tools and methods for quantitative analysis. The positivist paradigm employed in the research implies the existence of reality independently from the researcher. Based on those assumptions, objective reality observable through secondary data about levels of concentration and the market structure of banking sectors of post-Soviet countries is estimated. Having shown a positivist epistemology of the research based on, what can also be referred to as a *scientific approach* (Sekaran & Bougie, 2016), we need to explain that the research is not purely quantitative, but employs qualitative research paradigm as well. Thus, through this perspective, the study follows the pragmatism consideration and uses mixed methodology approach. The mixed methodology or the pragmatist approach, on the one hand, enabled the researcher to define the link between the variables through quantitative research whereas on the other, the qualitative approach gave an opportunity to study the research problem deeper and from different perspectives presenting views and interests of various stakeholders.

Considering research questions, the study utilizes quantitative and qualitative research methods. But research is mainly based on quantitative methods of analysis. Concentration ratios and Herfindahl - Hirschman index are employed to measure concentration levels. Panzar and Rosse's model is used for measurements of competition. The “H-statistic” is computed on two stages. The first stage includes employing the regression model based on the logarithmic form of total revenues on logarithmic form measures of banks' input prices. Input prices consist of the price of deposits (commonly measured as the ratio of interest expenses to total deposits), the price of personnel (measured by the ratio of personnel expenses to assets) and the price of equipment and fixed capital (approximated by the ratio of other operating and administrative expenses to total assets). The second stage includes computing the sum of estimated coefficients for each input price for drawing the type and level of competition at banking markets. The Z score is used for measuring stability levels of banking markets. The Z score envoys the number of standard deviations of return on assets the bank is away from bankruptcy, consequently a higher value of Z-score implies a higher banking stability. Beside, descriptive statistics and correlation analysis are used for assurance of data validation. Before conducting analysis of regression models, the so-called problem of multicollinearity was addressed and all independent variables with the correlation coefficients value within less than 0.8 are employed in the estimation of the regression model. The key assumption of the Panzar and Rosse's model includes regressing the observations that are in long-run equilibrium. This implies that banking institutions under analysis are required to be operating in a long-run equilibrium. For confirming this condition, a robustness test was carried out.

The qualitative study mainly includes desk research, case study and interviews with the financial sector professionals and independent experts for fulfilling the whole picture about the structure and levels of competition of banking sectors and then drawing precise recommendations.

Several variables will be researched using secondary data, such as, interest revenues, price of deposits (commonly measured as the ratio of interest expenses to total deposits), price of personnel (as captured by the ratio of personnel expenses to assets) and the price of equipment and fixed capital (approximated by the ratio of other operating and administrative expenses to total assets), ROA, CAR.

Results of Analysis

Concentration Level in Moldovan Banking Sector

The banking sector concentration level has been increased since 2013 with the tendency of decreasing the number of banking institutions in Moldova. The banking fraud in November 2014 significantly affected the sector. In 2014, approximately one billion USD disappeared from three Moldovan banks: Banca de Economii, Unibank and Banca Sociala. The bank fraud in Moldova implied joint effort of all three banks, acting together for extending high volume of loan financing from banking institutions without any reasonable business rationale (Matlack, 2015). As a result of major shrinking of the banking sector, due to the removal of “inflated” assets of 3 banks, which became insolvent during 2015, the number of banking institutions declined from 14 to 11 and the level of concentration has increased on the Moldovan banking sector (see Table 1).

Table 1. Concentration Level in Moldovan Banking Sector

Country-Moldova	CR ₃	CR ₅	HHI	Number of Banks
2013y	50%	70%	1184	14
2014y	49%	77%	1290	14
2015y	67%	85%	1759	11
2016y	64%	83%	1670	11
2017y	65%	84%	1724	11

Source: Researcher's calculations

Top 3 banks currently account for 65% of assets resulting in high concentration. Agroindbank, Moldindconbank and Victoriabank with the assets of 28%, 19% and 18%, respectively, are leaders of the banking sector. The five largest banks control 84% of the market in Moldova (see Figure 1). The influence of other banking institutions on the market is moderate, which is confirmed by HHI index showing moderate level of banking concentration resulting in 1724 points in 2017.

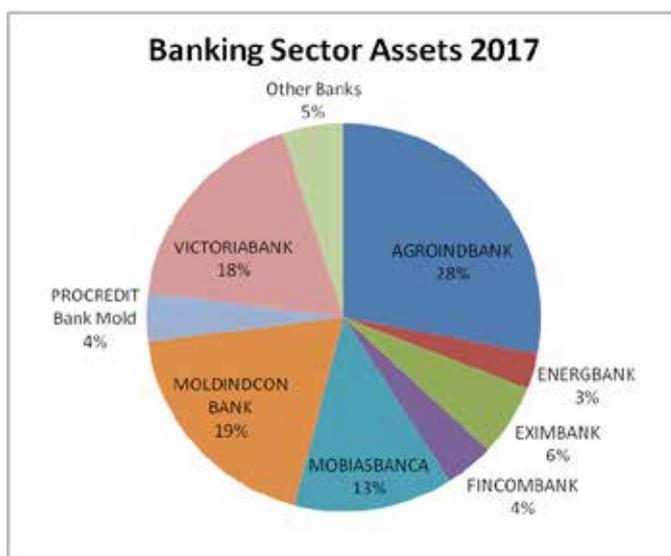


Figure 1. Asset Volume of Moldovan Banking Sector

Source: Composed by Researcher; NBM Statistics 2018

Before the events, the number of active banks amounted to 14 in 2013-2014, the market was characterized with low concentration resulting HHI index in 1184, 1290 points with un-concentrated status; but then fraud and crisis concentration level turned into moderate concentrated according to the HHI index value in 2015-2017 years.

Competition at the Moldovan Banking Market

According to the results of (Hausman, 1978) test by comparing the coefficients of fixed and random effects models, the random effects model was not rejected in favor of fixed effects, indicating that random effects model is appropriate in Moldovan case.

The adjusted R-squared is having quite low value, accounting to 0.27, implying that independent variables at a low extent explain the dependent variable. The adjusted R-squared is reported instead of unadjusted one, due to the fact that the adjusted R-squared describes more precisely the picture of fit in case of the models consisting of many explanatory variables (Gujarati & Porter, 2009). Low level of R-squared can be related to the low number of observation. Also, in spite of the low level of adjusted R-squared value, it can be concluded that those independent variables are still important explanatory to dependent variable based on the results obtained in case of other similar countries of post-Soviet market.

Table 2. H statistics of Moldovan Banking Sector

Dependent Variable: LOG(TR/TA)						
Panel Least Squares Pooled OLS			Panel EGLS (Cross-section random effects)			
Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	-0.965180	-1.862061	0.0687	-0.153784	-0.161475	0.8724
LOG (IntExp/TD)	0.134345	2.114823	0.0397	0.146635	2.659772	0.0106
LOG (PersExp/TA)	0.296030	4.739056	0.0000	0.153133	2.202664	0.0325
LOG (OthOperAdmExp/TA)	0.132603	1.941068	0.0581	0.118915	1.683944	0.0987
LOG (TC/TA)	-0.107365	-1.120779	0.2680	-0.109147	-0.825064	0.4134
LOG (NetLoans/TA)	-0.054429	-0.539245	0.5922	-0.115094	-1.493410	0.1419
LOG(TA)	0.032649	0.824298	0.4138	-0.042913	-0.706080	0.4836
H Statistics	Adjusted R-squared		0.428956	Adjusted R-squared		0.274001
	H=0.134345+0.296030+0.132603=0.562978			H=0.146635+0.153133+0.118915=0.418683		
	0<H<1, monopolistic			0<H<1, monopolistic		

Source: Researcher's calculations

The independent variables: price of funds ($W1$), the cost of labor ($W2$) and the cost of capital ($W3$) are positive determinants of the dependent variable, the total revenue. The price of funds or funding rate with 0.15 value, is the highest contributing coefficient to the H-statistic. This result is very reasonable, as funding amounts to one of the main portions in the bank's production functions. The same results are discovered by (Bikker, 2004). The positive interconnection between interest expenses and revenues is sourced by coordinated movements of borrowing and lending rates. The same findings are highlighted by (Coccoresse, 2009). Both variables, the cost of labor ($W2$) and the cost of capital ($W3$) are having positive values, which can be explained by the fact that rising in costs of production increases the revenue but till the point where the marginal cost equals marginal revenue. All variables $W1$, $W2$, and $W3$ are statistically significant, meaning that they contribute to the H-statistic (see Table 2).

The signs of control variables are controversial. The equity to total assets, denoted as the risk factor, has negative correlation with total revenue, which is anticipated as lower capital ratio promoting higher interest income. According

to the related studies, high capital ratio is deemed as a large capital buffer for maintenance of solvency of banking institutions, acts as an impeding factor for revenue enhancement, by imposing the opportunity costs. A lower equity ratio contributes to the high leverage and, consequently, more interest income (Molyneux, Lloyd-Williams, & Thornton, 1994). The coefficients of net loans to total assets and total assets themselves are anticipated to have positive signs. As expected, more loans suggest more interest income and total assets represent the source for potential future income; in fact, they are negative insignificant contributors to H-statistics with -0.11 and -0.12 coefficients. This result can be explained by two factors. First, statistical significance is low of those variables. Secondly, such results may have connection with previous year's banking fraud at the Moldovan banking market. As a result, the central bank was forced to remove quite a solid portion of "infected" assets from the market, impacting on revenue generation of banking institutions.

The value of H-statistic is 0.42. According to the results of the Wald test, the H-statistic coefficient does not equal zero or one, confirming that the banking sector is neither a monopoly nor perfectly competitive. Therefore, the Moldovan banking market is characterized by monopolistic competition. The obtained value of the H-statistic is positive and significant, implying that revenues of banking institutions are derived in a monopolistic competition environment of the Moldovan banking sector. As competition coefficient is 0.42, closer to 0 than 1, it can be concluded, that the banks are operating under the decreasing tendency of monopolistic competition in Moldova.

Stability in the Moldovan Banking Sector

Table 3 represents results of Z score of each individual bank and the whole banking sector of Moldova. Two most stable banks are Agroindbank, the leading bank of the market with 28% share and Eurocreditbank, with 108 and 105 Z scores, respectively, as an average for the 5-year period. Stability of next five banks is at the moderate level ranging between 30 to 55 points and the last four banks indicate low levels of stability.

Table 3. Z score of Moldovan Banks

N	Bank	Z score 2013	Z score 2014	Z score 2015	Z score 2016	Z score 2017	Bank Average 5 year	Forecasted Z score 2018
1	AGROINDBANK	114.09	107.67	104.77	106.77	107.02	108.06	107.22
2	COMERTBANK	34.21	33.47	30.87	28.67	28.09	31.06	27.19
3	EUROCREDITBANK	125.56	134.05	97.67	89.42	76.26	104.59	65.75
4	ENERGBANK	52.15	52.07	56.34	58.53	56.21	55.06	56.20
5	EXIMBANK	8.74	9.58	10.81	9.68	8.83	9.53	9.16
6	FINCOMBANK	22.65	23.99	23.96	21.41	20.44	22.49	19.44
7	MOBIASBANCA	25.04	21.53	22.11	22.06	20.26	22.20	20.35
8	MOLDINDCONBANK	14.15	17.66	13.92	16.30	18.23	16.05	15.55
9	PROCREDIT Bank MOLD	47.80	51.33	50.78	54.76	61.19	53.17	63.09
10	BCR CHISINAU	26.65	31.31	34.28	30.37	29.23	30.37	28.07
11	VICTORIABANK	39.21	40.15	41.93	46.35	44.24	42.38	44.40
	Country Z score by year	46.39	47.53	44.31	44.03	42.73	45.00	41.49

Source: Researcher's calculations

Since 2013 stability of Eurocreditbank has decreased by almost 40% during five years and reached the score of 76; as the bank's market share accounts to 1%, such a decline cannot be counted as a peril to market stability, as other banks maintain steady stability levels (see Table 3).

In spite of banking fraud at the end of 2014 and the declined number of banking institutions from 14 to 11, the Moldovan banking sector seems to maintain stability at a normal level with the average score of 45 for the five-year period. Such

level of stability is related to the structure of the market in which top 3 banks and other 4 western-owned ones control 65% and 25% of the market, respectively, permanently increasing their shares. Practically, such combination accounts to 90% of the whole market and promotes stability.

Conclusion

Banking Concentration Impact on Market Structure of Moldovan Financial Market

The results show that the Moldovan banking market faces high level of concentration with top 3 banks controlling 65% of the market. The banking sector concentration level has increased since 2013 with the tendency of decreasing number of banking institutions due to the banking fraud in November 2014, which significantly affected the sector. As a result of major shrinking of the banking sector due to the removal of “inflated” assets of 3 banks, which became insolvent during 2015, the number of banking institutions declined from 14 to 11 and the level of concentration increased in the Moldovan banking sector. Agroindbank, Moldindconbank and Victoriabank with assets of 8%, 19% and 18%, respectively, are leaders of the banking sector. The five largest banks control 84% of the market in Moldova. The influence of other banking institutions on the market is moderate, which is confirmed by HHI index showing a moderate level of banking concentration resulting in 1724 points in 2017.

The banking system in Moldova suffers from critical governance weaknesses which the National Bank of Moldova (NBM) has been unable to effectively address. A small number of individuals has gained control of some of the largest banks in the country through illicit schemes. Irresponsibility of management of some banks when making managerial decisions, unsatisfactory state of the bank’s management by the owners, including, orientation of banks, credit institutions to serve only the interests of a small group of bank owners, existence of non-transparent forms of credit decision, inaccuracy of accounting documents and reports provided, involvement of banks and credit institutions in illegal activities, insufficient technological and informational security evidence of banks, credit institutions are main messages, when describing the Moldovan banking sector in the World Bank Report (World Bank, 2014).

Since 2010, Moldovan banks have been victims of “raider attacks”, which have resulted in surreptitious changes in ownership control. Ownership structures of banks are not transparent, preventing the NBM, the public, and investors from assessing the owners. Raiders are now using the banking system to finance activities that are not in the best interests of the banks, shareholders, depositors or the government. If such activities ultimately threaten the viability of some of the larger institutions in the country, the ramifications would be costly for the country’s budget (and taxpayers), depositors, and creditors, and financial stability as a whole. Ultimately, the economy itself is at risk, as international and historic experience has demonstrated the economic crises stemming from financial ones are often the most severe both in depth and longevity.

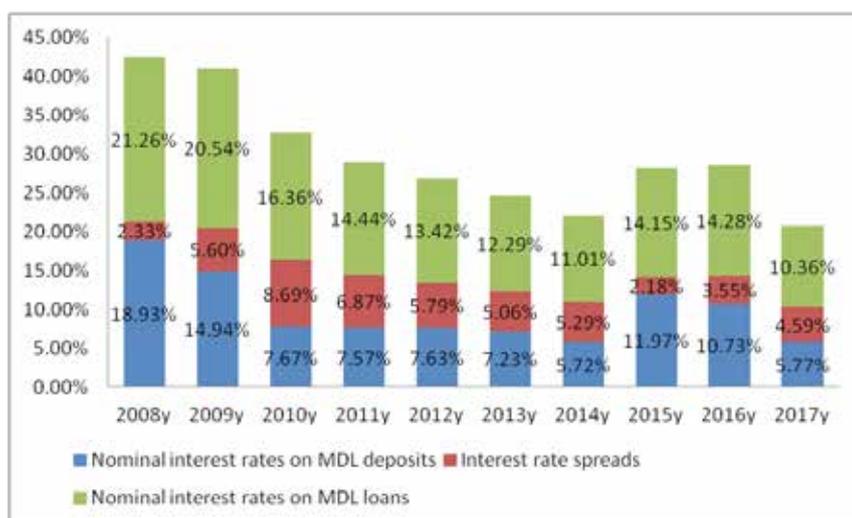


Figure 2. Interest Rates on MDL Loans and Deposits

Source: Composed by Researcher; NBM Statistics 2018

The banking sector in Moldova operates under the monopolistic market structure with low level of competition accounting

to 0.42 points. Banks have the ability of extracting monopolistic profits from big interest rate spreads in concentrated markets by using power of offering lower rates on deposit and charging higher rates on loans, thus enjoying high profitability (see. Figure 2). This framework implies setting less favorable prices to customers based on collusive and non-competitive behavior in highly concentrated markets. Interest rate spreads have increased since the so called “riders attack” and other illegal activities. Also, quick increase of average interest rates for loans since late 2014 from 11% to 14% in 2016 was due to the restrictive monetary policy and higher inflation sources by banking fraud. But in 2017 rates declined to 10.0% (NBM, Statistics, 2018). Thus, the more the degree of concentration the lower the level of competition at the market. Competition is limited, and connected lending and large exposures represent significant risks to the system.

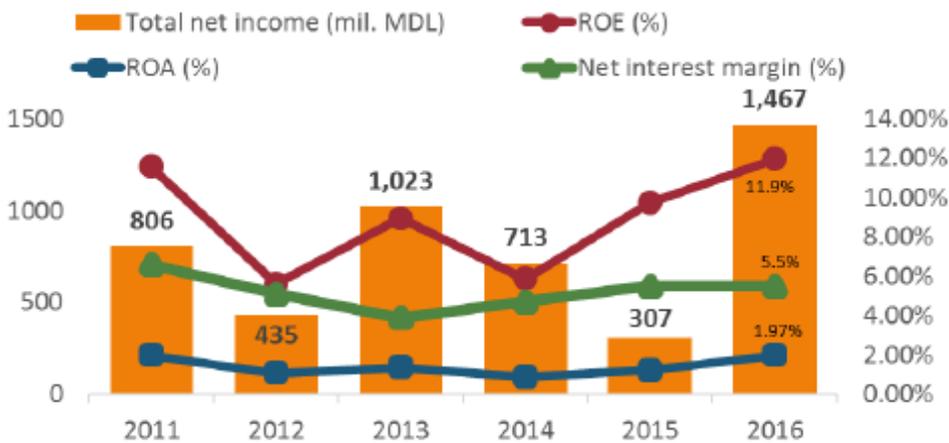


Figure 3. Profitability of Moldovan Banking Sector

Source: Cioclea, NBM Report 2017

The Moldovan banking market seems quite profitable, despite serious problems in the sector. Due to banking fraud and money laundering in 2014, 3 banks became insolvent and were liquidated. Loss amounted to 1 billion USD. But in 2015 insolvent banks were removed from statistics and yearly data does not show losses by insolvent banks. High interest rate spreads, high interest rates for government bonds and NBM certificates and profits from FX operations are main sources of income of Moldovan banks. After 2014-15 banking crisis, in 2016 the banking sector shows again high profitability resulting in almost 1.5 MDL billion income and highest ROE, accounting to 12% with stable net interest margin (Cioclea, 2017) (see Figure 3).

The situation and the structure of the Moldovan banking market is consistent with the “concentration-fragility” view, stating that increase in banking concentration results in reductions of credit supply. Higher concentration at the local bank market results in lower competition; prices are higher for financial services. A sharp decline of outstanding loans started in the aftermath of the banking fraud in late 2014 and process still continues on (see. Figure 4). Bottom has not been reached yet. At the same time, lending to the private sector remains weak amounting to less than 48% of bank assets and continues to shrink. Low lending to real sector is due to weak demand from business, high interest rate until now, high interest rates for government bonds and NBM certificates and structural issues. Majority of bank deposits are invested in liquid assets: government bonds, NBM certificates, accounts at NBM, other banks, cash (NBM, 2017).

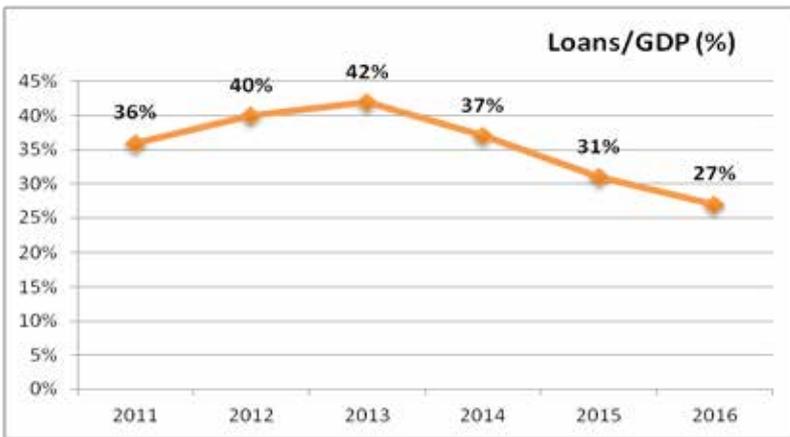


Figure 4. Loans Share in County's GDP

Source: Cioclea, NBM Report 2017

The corrupt structure of the Moldovan financial market is based on Ultimate Beneficial Owners (UBOs), who act as shadow cardinals in management of the system. Those UBOs have interests in strategic entities in the economy, including banks, non-bank financial institutions (leasing and insurance companies), share registries and the judicial system. This, in conjunction with a regulatory and supervisory regime that has been weakened by the Constitutional Court rulings, has the potential to place the country's economic and financial stability and security at risk. According to October 2013 Constitutional Court ruling, administrative powers of the NBM reduced significantly. According to the ruling, any administrative decision taken by the NBM can be appealed and while the appeal process is on-going, the administrative decision can remain suspended until the final decision by the court (except for issues related to liquidations and removal of operational licenses of banks). Such a reality seriously questions soundness and transparency of the financial system and frustrates development of business and economy.

Access to credit flagged as the third most important obstacle to business in the World Bank/EBRD survey, especially, for SMEs. More than 80% of small businesses in Moldova are more likely to rely on internal funds and in case of loan financing, average collateral value is above 200% (see. Figure 4). Based on results, demand for credit of SMEs varies between 50 and 70%, but had the need for credit and was refused/discouraged from applying 50% of firms. NBM encourages banks to play a leading role for financing real economy, particular SMEs, productive sectors and innovations. Share of SME credit slightly increased over the past 2 years. Access to credit by individuals also seems to be in line with peer group (OECD, 2017).

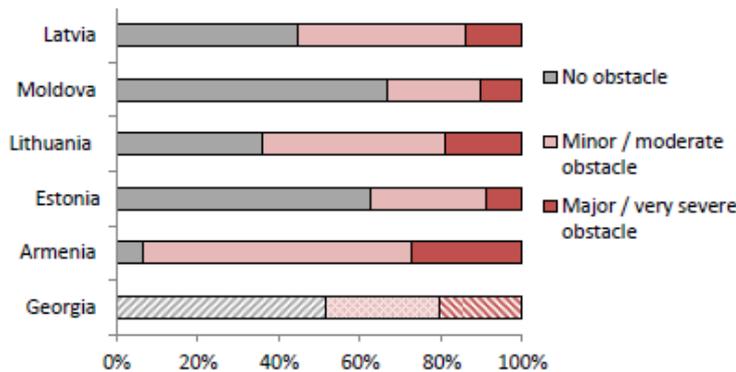


Figure 5. Access to Finance as an Obstacle for SME in Moldova

Source: OECD, 2017

The stability measure of the Moldovan banking sector seems to be at the moderate level. In spite of banking fraud in the end of 2014 and the declining number of banking institutions from 14 to 11, the Moldovan banking sector seems to maintain stability at a normal level with the average 45 scores for a 5-year period. Such level of stability is related to the structure of the market in which top 3 banks control 65% indicating moderate stability. They are also under special supervision by the National Bank of Moldova and other 4 western-owned banks control 25% of the market permanently

increasing their shares. Practically, such combination accounts to 90% of the whole market and promotes stability (see. Figure 6).

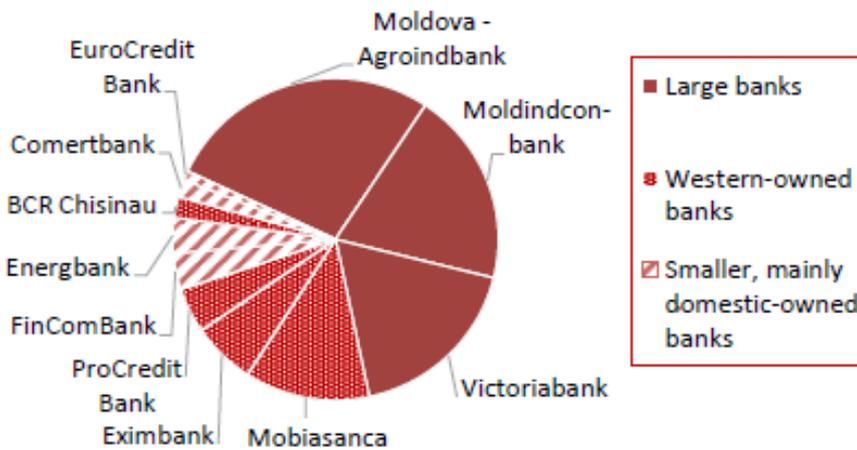


Figure 6. Bank Segmentation and Concentration

Source: Composed by Researcher

In 2017, EBRD launched a 500-million euro project to support the potential for economic growth in the Republic of Moldova through a more transparent, efficient, competitive and resilient economic environment by strengthening supervision, corporate governance and risk management in the financial sector (EBRD, 2017).

Finally, the Moldovan banking system is characterized by high concentration level which results in low competition and moderate market stability. Monopolistic market structure of Moldovan banks, with high entry barriers, high service fees along with credit institutions to serve only the interests of a small group of bank owners dominating the whole financial market, excludes fair competition circumstances at the market, alternative sources of financing, results in reductions of credit supply, increases adverse selection and moral hazard problems, vulnerability of the system and results in expensive and limited access to finance. Corruptive structure of the Moldovan financial market based on UBOs, acting as shadow cardinals in management of the system, having interests in strategic entities in the economy including banks and non-bank financial institutions represent critical danger to the country's financial system which the NBM has been unable to effectively address.

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