THE BANKING SUPERVISION: CAN IT REDUCE THE RISK-TAKING AND, CONSEQUENTLY, STRENGTHEN THE STABILITY OF THE BANKING SECTOR IN MOLDOVA?

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Actuality: The empirical studies on the impact of the supervision on the stability of the banking sector are mitigated, varying depending on the particular characteristics of the bank and, in addition, the country's policy in which banks operate. This is why this study is important for the banking sector in Moldova. Purpose: The objective of this article is to studies the effects of the banking supervision on the risk-taking of banks and, consequently, the stability of the banking sector in Moldova. Methods: To order to achieve its purpose, the author applied the method of static panel data with random effect. Results: This empirical analysis reported the following results: increased restrictions on the activities of banks increases the stability of the banking sector. On the other hand, the power and independence of the supervisory authority have a negative impact on the stability of Moldovan banks. The increase of the capital level strengthens the stability of Moldovan banks and, at the same time, reduces the risk. Thus, capital regulations are an important pillar of the policy of the regulation of the banking sector of Moldova.

Keywords: *banking sector, banking supervision, risk-taking, stability, panel data, global index of regulations and supervisions, restrictions, power of supervisors and independence of the control authorities.*

Actualitate: Studiile empirice cu privire la impactul supravegherii asupra stabilității sectorului bancar sunt diverse, variind în funcție de caracteristicile particulare ale băncii și, în plus, de politica țării în care băncile funcționează. Astfel, pentru sectorul bancar din Moldova, cercetarea respectivă este importantă. Scop: Obiectivul acestui articol este de a studia impactul supravegherii bancare asupra asumării riscurilor de bănci și, în consecință, asupra stabilității sectorului bancar din Moldova. Metode: pentru a atinge scopul propus, autorul a aplicat metoda de date panel statice cu efect aleatoriu. Rezultate: În baza analizei empirice efectuate, se constată următoarele rezultate: majorarea restricțiilor asupra activităților băncilor crește stabilitatea sectorului bancar. Pe de altă parte, puterea și independența autorității de supraveghere au un impact negativ asupra stabilității băncilor din Moldova. Majorarea nivelului capitalului consolidează stabilitatea băncilor și, în același timp, reduce riscul asumat de acestea. Astfel, reglementările de capital reprezintă un pilon important al reglementării sectorului bancar al Moldovei.

Cuvinte-cheie: *sector bancar, supraveghere bancară, asumarea de riscuri, stabilitate, date panel, index global al reglementării și supravegherii, restricții, puterea și independența autorităților de control.*

Актуальность: Существуют различные эмпирические исследования о влиянии надзора на устойчивость банковского сектора, изменяясь в зависимости от конкретных характеристик банка и к тому же от политики страны, в которой банки работают. Именно поэтому данное исследование имеет значение для банковского сектора в Молдове. Цель настоящей статьи состоит в том, чтобы изучить влияние банковского надзора на принятие рисков банками и, как следствие, влияние на стабильность банковского сектора в Молдове. Методы: Для того, чтобы достичь своей цели автор применил метод статических групповых данных с произвольным эффектом. Результаты: Этот эмпирический анализ описывает следующие результаты: увеличение ограничения деятельности банков, повышая стабильность банковского сектора. С другой стороны, власть и независимость органа надзора оказывают негативное влияние на стабильность молдавских банков. Повышение уровня капитала усиливает стабильность

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молдавских банков и, в то же время, снижает риск. Таким образом, регулятивные нормы являются важным элементом регулирования банковского сектора Молдовы.

Ключевые слова: *банковский сектор, банковский надзор, принятие рисков, стабильность, анализ панельных данных, глобальный индекс норм и надзора, ограничения, власть инспекторов и независимость контролирующих органов.*

JEL Classification: G21, G28, G29, G33, G39.

Introduction. In order to ensure the soundness and stability of the banking sector, it is very important to apply the most appropriate banking supervision. Thus, in response to the recent financial crisis, with the purpose to stimulate and ensure the stability of the banking sector, the regulating authorities are in the process of rewriting the prudential rules. However, it should be noted that the implementation of these regulations requires complex steps, depending on the policies of each separate country and, in addition, the institutional environment in which the banks operate. Thus, these regulations could have different effects on the performance of banks from different banking sectors.

It is worth mentioning the fact that most of the analytical and empirical work on the analysis of the stability of the banking sector is concentrated in industrialized countries and, therefore, they do not take into account the imperfections of financial markets that developing middle-income countries typically have to face. Thus, in this research we propose to overcome the empirical failure of previous studies by testing the impact of the supervision on the stability of the banking sector of Moldova.

As part of this research, we will analyse the impact of supervision on the stability of the banks from the banking sector of Moldova. Our study consists of 14 commercial banks, for the period from 2000 to 2014. The data were collected from the Bankscope database of the Dauphine University (2015), data from the World Bank (2015), and the Financial Structure Database (2015). We especially paid attention to the temporal continuity of the data and, given the relatively small number of our samples, we had manually added the missing data.

1. Econometric models: the panel data

In our study, the author applied the method of static panel data with random effect, offering heterogeneity to the level of the data. The advantage of the panel data method is that it is characterized by a double dimension: individual and temporal. In addition, unlike the time series (based on a hypothesis of homogeneity of individuals (Pirotte, 2011)) or in cross section (prohibiting a dynamic approach of individual behaviours), this double dimension reflects simultaneously the dynamic of behaviours and their eventual heterogeneity, which equally allow to increase the number of observations and the degrees of freedom, as well as the coexistence of several variabilities (Pirotte, 2011).

The equations of the panel data are specified as follows:

Panel A: Stability: global index of regulations and supervisions, control variables specific for the bank and macroeconomic factors:

$$Stab_{i,t} = \sim_1 (IG\_Superv)_{i,t} + \sim_2 (Buffer)_{i,t} + \sim_3 (Size)_{i,t} + \sim_4 (Growth\_Assets)_{i,t} + \sim_5 (RLL\_TL)_{i,t} + \sim_6 (NPL\_TL)_{i,t} + \sim_7 (LiqAssets\_TA)_{i,t} + \sim_8 (Depo\_Assets)_{i,t} + \sim_9 (Gouv)_{i,t} + \sim_{10} (Infl)_{i,t} + \sim_{11} (Cycle)_{i,t} + £_{i,t}$$

Panel B: Stability: regulations, supervisions, capital buffer, factors specific for the bank and macroeconomic factors:

$$Stab_{i,t} = \sim_1 (Restr)_{i,t} + \sim_2 (Indep\_AutCNT)_{i,t} + \sim_3 (Pow\_Superv)_{i,t} + \sim_4 (Buffer)_{i,t} + \sim_5 (Size)_{i,t} + \sim_6 (Growth\_Assets)_{i,t} + \sim_7 (RLL\_TL)_{i,t} + \sim_8 (NPL\_TL)_{i,t} + \sim_9 (LiqAssets\_TA)_{i,t} + \sim_{10} (Depo\_Assets)_{i,t} + \sim_{11} (Gouv)_{i,t} + \sim_{12} (Infl)_{i,t} + \sim_{13} (Cycle)_{i,t} + £_{i,t}$$

Where:

i – means the banks in our sample: i = 14;

t – the study period from 2000 to 2014: t = 15;

α i – represents the coefficients of the explanatory variables of the banking stability;

ε – is the error term.

2. The construction of the database

2.1. The dependent variable

The stability (STAB): In order to measure the stability of the banking sector of Moldova, we chose the most relevant proxy used in the literature (see for example: Lee and Hsieh, 2014). Therefore, the *"**STAB**"* variable represents a set of four dependent variables used to measure financial stability, namely:

- the Z-index for ROA (ZiA);
- the Z-index for ROE (ZiE);
- the volatility of the economic profitability (VOL_ROA);
- the volatility of the financial profitability (VOL_ROE).

In our research, with reference to the works of Fang (2014) and Lee and Hsieh (2014), we will use the Z-index as "*an inverse proxy for a bank's probability of failure*". Furthermore, because the Z-score is highly biased, we follow the works of the research of and Fang (2014) and use the natural logarithm of the Z-score, which is normally distributed.

1) The Z-index for ROA (***ZiA***) is defined by the following equation: [(return on assets + ratio of capital to assets) / standard deviation of the return on assets)].

2) Respectively, the Z-index for ROE (***ZiE***) = [(return on capital + ratio of capital to assets) / standard deviation of the return on capital)].

Furthermore, in order to assess the way in which the bank risk varies according to the banking regulation and supervision, we intend to understand the extent to which the differences between the stability of banks (Z-score) are attributable to differences in their economic profitability and their financial profitability. Consequently, in addition to the proxy Z-index, we will examine the volatility of the economic profitability of banks and the volatility of their financial profitability.

3) The volatility of the economic profitability (***VOL_ROA***): the standard deviation of ROA for every three years.

4) The volatility of the financial profitability (***VOL_ROE***): the standard deviation of ROE for every three years.

2.2. The explanatory variables

Supervision: Referring to the works of Barth et al. (2001; 2003; 2004; 2006; 2008; 2013), we divided the regulations and supervisions in three categories: restrictions on the bank activities (***Restr***), the power of supervisors (***Pow_Superv***) and the independence of the control authorities (***Indep.AutCNT***). Further, we created a global index of supervision ***(IG_Superv)***, which includes the three categories of supervision.

Capital buffers (Buffer): similar to the literature (Shim, 2013), we define the capital buffer of banks as the difference between the total risk weighted capital and the minimum ratio of capital required by the supervisory authority.

The size of the bank (Size): it is generally known that large banks are safer and better known on the market. At the same time, the size of a bank can play an important role in the risk-taking, stimulating "*the appetite for risk*" considering the possibilities of investment, diversification, as well as access to capital. Moreover, large banks could be covered by the phenomenon *"too-big-to-fail"* and, in an emergency they will be bailed out with the government's help. In our research, in order to measure the size of the bank, we will apply the log of total assets.

The growth of total assets (Growth_Assets): for this variable, we used as proxy the percentage variation of total assets compared with the value of the previous year. A high growth rate indicates a good risk management and, therefore, an increase of the viability and stability of banks.

Reserves for loan losses (RLL_TL): this indicator is measured by the ratio between reserves for loan losses and the total of gross loans. The reserves represent the amount that banks hold as sufficient to cover estimated losses on loan portfolios. Thus, the level of reserves that the bank holds reflects the quality of its loan portfolio, while the quality of the loan portfolio reflects the bank's stability.

Non-performing loans to total loans (NPL_TL): this indicator measures the credit risk in the banking sector. In fact, in order to represent the risk profile of the banks' assets, it is often used the ratio of risk-weighted assets compared to the total assets of the bank. Nevertheless, this formula for the risk weighting does not take into account the different risk levels among the specific assets of the portfolio. For example, for all commercial loans the same weight is assigned (100%), although the level of losses on loans to borrowers is different. Therefore, in order to overcome this problem, referring to the works of Shim (2013), we will measure the bank's credit risk using the ratio of non-performing loans to total loans.

Liquidity (LiqAssets_TA): the ratio of liquid assets to total assets, which measures the liquidity risk in the banking sector (Lee and Hsieh, 2014). In fact, the banks with a higher level of liquid assets (which can be easily converted into treasury) will have a greater capacity to meet their short-term financial obligations without resorting to the premature sale of investments or capital assets. In addition, the banks which will wish (or will be obliged) to hold a certain level of liquid assets might be less incited to engage in risky lending (Shim, 2013).

The ratio of deposits to total bank assets (Depo_Assets): this variable provides an indicator of funding choice, considering that the deposits collection activity has the most stabilizing effect on the income of the bank. Therefore, referring to the works of Lee et al. (2014), we included this variable in our econometric model that analyses the impact of the regulation and supervision on the stability of the banks from the banking sector of Moldova.

Governance (Gouv): a binary variable, proposed by the authors, which takes the value of 1 if the bank is controlled by the government and 0 if otherwise.

Inflation (Inlf): in order to measure the inflation, we will use as a proxy the inflation rate, until a negative relation between the stability and the inflation rate.

Economic cycle (Cycle): as a proxy for the indicator of the economic cycle we will use the real rate of GDP growth (Cycle), which is considered the most appropriate indicator of the business cycle (Shim, 2013).

3. Results and analyses

In general, according to the economic analysis, banking supervision is justified when market mechanisms present certain imperfections. The most striking example is the recent financial crisis. In addition, these dire consequences have clearly underlined the importance of strengthening the financial stability of a banking system. The strongest rational is that the costs associated with the recovery of the banks' financial situation are generally higher than those associated with an adequate banking supervision.

Moreover, as experience has shown, the financial crisis can quickly spread worldwide, its main characteritic being that it *"seldom respects national borders"* (Roubini and Mihm, 2010). Thus, as it was pointed out by Stiglitz (2010), even though the crisis may start anywhere in the world, it risks becoming global.

Regarding Moldova, the global economic crisis had hit this country in three ways: the decline in capital transfers of migrants living abroad; decline in foreign investment and decline in trade due to the deterioration of the situation in its partner countries. This has resulted in a deep recession: GDP falling by 6.5% in 2009, decline of the level of growth (3.5% in 2012 against 6.4% in 2011) and a deficit of 736 million USD in 2012 at the level of the balance of payments.

3.1. Stability of the banking sector in Moldova: global index of regulations and supervisions, variables specific for the bank and macroeconomic factors

Table 1

	(1)	(2)	(3)	(4)
	ZiA	**ZiE**	**VOL_ROE**	**VOL_ROA**
IG_SUPERV	-0.250***	-0.282***	2.364***	0.383***
	(-5.01)	(-7.19)	(3.88)	(3.81)
Buffer	0.0108**	0.0210***	-0.310**	-0.0102
	(3.01)	(6.43)	(-3.19)	(-1.16)
Size	0.185	0.646	-2.230	-0.705
	(0.69)	(1.51)	(-0.97)	(-1.59)
Growth_Assets	0.358	-0.386	16.52***	-0.372
	(0.84)	(-0.78)	(5.22)	(-0.50)
RLL_TL	-0.162***	-0.194***	2.296***	0.245***
	(-6.51)	(-5.99)	(3.81)	(4.45)
NPL_TL	-0.0925***	-0.102**	1.860**	0.271***
	(4.24)	(2.87)	(-3.06)	(-6.95)
LiqAssets_TA	0.198	0.660	-27.22**	-4.384**
	(0.21)	(0.56)	(-2.81)	(-2.61)
Depo_Assets	2.492***	2.907***	-100.7**	-6.858**
	(3.73)	(3.54)	(-2.98)	(-2.80)

Gouv	-1.296***	-1.056***	21.17**	2.327***
	(-7.09)	(-6.13)	(3.07)	(4.50)
Infl	-0.0831**	-0.0550	0.0614	-0.00291
	(-3.08)	(-1.17)	(0.12)	(-0.07)
Cycle	0.0918***	0.122**	-1.765***	-0.110***
	(3.44)	(2.97)	(-7.27)	(-3.50)
_cons	6.052***	2.457	53.47	4.045
	(5.35)	(1.50)	(1.63)	(1.25)
N	88	87	89	89
R-sq	0.505	0.506	0.619	0.662

* Significance at a level of 10%. ** Significance at a level of 5%. *** Significance at a level of 1%.

Table 1 presents the results of estimates of our static panel (1) with random effect, which measures the impact of the global index of supervision on the stability of banks from the Moldovan banking sector. Consequently, the global index of supervision (IG_Superv), which includes the power of supervisors (Pouv_Superv) and the independence of the supervisory authorities (Indep.AutCNT) is statistically significant at the 1% threshold of significance. This indicator is negatively related with the stability of the Moldovan banking sector (measured by the Z-index for economic profitability and the Z-index for financial profitability) and, at the same time, positively related with risk taking (measured by the volatility of the economic profitability (VOL_ROA) and volatility of financial profitability (VOL_ROE)). Our results indicate that strengthening the regulatory and supervisory policies decreases the stability of Moldovan banks while increasing the risk taking by their leaders.

The capital buffer (the difference between the total risk weighted capital and the minimum ratio of capital required) is statistically significant and positively related to the stability of the Moldovan banking sector and negatively related to the risk-taking. Thus, a high level of capital reinforces the stability of Moldovan banks and, at the same time, reduces the risk-taking of banks. In this context, Barth et al. (2013) have recently emphasized that capital regulations are an important pillar of the policy of the banking sector worldwide. Moreover, the buffer of capital is considered a regulatory measure of "protection" against the pro-cyclicality of financial systems (see, for e.g., Berger and Bouwman (2013); Athanasoglou et al. (2014)).

The indicators characterizing the quality of assets (RLL_TL: reserves for losses on loans/total loans and PNP_TOT: the ratio of non-performing bank loans in relation to the total loans) are statistically significant and negatively correlated with the stability of the Moldovan banking sector and positively associated with risk-taking. Our results confirm the results of Reinhart and Rogoff (2011), which demonstrated that the problems of banks result from a prolonged deterioration of asset quality and, therefore, a sharp increase in non-performing loans may mark the beginning of a banking crisis.

The asset growth is positively correlated with the risk-taking at the 1% threshold, given the fact that the bigger the bank, the more it adopts riskier strategies (Garcia and Marco Robles-Fernandez (2008). In the revenue boost, a greater bank will increase the assumed risk, this being consistent with the phenomenon *"too big to fail"* Moreover, it makes the control and supervision of large banks more complicated - known as the phenomenon *"too big to discipline"*.

On the other hand, a high level of liquid assets will have a negative impact on the risk-taking of banks, which can be explained by the fact that the assets are capitalized in cash and not in risky assets. Moreover, according to Shim (2013), the banks with a higher level of liquid assets tend to have a lower ratio of non-performing loans. It should be highlighted that the Moldovan banks are more cautious, more alert with taking risks and prefer to have a high level of liquidity.

Another feature of Moldovan banks is that they primarily perform traditional activities for banks: accept deposits and offer loans. In fact, the lending activity is the main income generating activity for Moldovan banks. This is due to the fact that the "deposits/total assets" (Depo-Assets) ratio has a positive impact on the stability of the banks from the banking sector of Moldova at the 1% threshold and a negative impact on the risk-taking at the 5% threshold.

The governance (the binary variable that takes the value of 1 if the bank is controlled by the government and 0 if otherwise) is statistically significant at the 1% threshold and negatively correlated with the stability of the Moldovan banking sector. Therefore, in case of Moldova, the banks that are not controlled by the government are more stable.

Regarding the macroeconomic factors, we found that inflation is statistically significant at the 5% threshold, having a negative impact on the stability of the Moldovan banking sector, which confirms our expectations. However, the economic cycle (the actual rate of GDP growth) has a positive impact on the stability of the Moldovan banking sector. Therefore, the risk level remains higher during the period of economic recession, while it is lower during the period of growth.

We conclude that the variables in our model are statistically significant in explaining the stability of Moldovan banks. Furthermore, we have a good adjustment of the model, because R2 ranges between 0.505 and 0.662.

Table 2

	(1)	(2)	(3)	(4)
	ZiA	**ZiE**	**VOL_ROE**	**VOL_ROA**
Restr	0.233*	0.559**	-3.963	-0.369
	(2.07)	(2.81)	(-1.27)	(-1.84)
Pouv_Superv	-0.263*	-0.418*	3.971	0.302
	(-2.25)	(-2.01)	(1.25)	(0.86)
Ind_AutCNT	-0.512*	-0.540	3.168	0.998
	(-2.01)	(-1.37)	(0.51)	(1.57)
Buffer	0.0119***	0.0233***	0.325***	-0.0131
	(3.65)	(10.37)	(-3.49)	(-1.63)
Size	0.270	0.807*	-3.381	-0.840
	(1.04)	(2.04)	(-1.31)	(-1.85)
Growth_Assets	0.446	-0.190	16.24***	-0.516
	(1.12)	(-0.43)	(5.20)	(-0.75)
RLL_TL	-0.136***	-0.150***	2.130**	0.222***
	(-5.01)	(-4.39)	(2.99)	(4.75)
NPL_TL	-0.0929***	-0.109**	2.050***	0.271***
	(4.92)	(2.68)	(-5.62)	(-5.44)
LiqAssets_TA	-0.141	0.194	-25.93	-3.490
	(-0.12)	(0.14)	(-1.61)	(-1.53)
Depo_Assets	2.428***	2.929***	-101.4**	-6.837**
	(3.63)	(3.76)	(-2.90)	(-2.68)
Gouv	-1.275***	-1.070***	21.68**	2.232***
	(-6.62)	(-5.19)	(2.59)	(3.39)
Infl	-0.0584*	0.00577	-0.552	-0.0272
	(-2.52)	(0.11)	(-0.99)	(-0.36)
Cycle	0.0613**	0.0594	-1.309***	-0.0704
	(3.02)	(1.61)	(-4.79)	(-1.86)
_cons	3.358**	-1.707	82.45*	8.810*
	(2.73)	(-1.45)	(2.46)	(2.48)
N	88	87	89	89
R-sq	0.526	0.551	0.633	0.667

* Significance at a level of 10%. ** Significance at a level of 5%. *** Significance at a level of 1%.

Table 2 presents the empirical results of the impact of different categories of regulations and supervisions on the stability of the banks from the banking sector of Moldova. Therefore, we notice that the restriction on banking activities (Restrict) promotes the stability of Moldovan banks. In contrast, the other variables of banking supervision: the supervisory power (Pow_Superv) and the independence of the supervisory authority (Ind_AutCN) are statistically significant and negatively associated with the stability of the Moldovan banking sector at the 10% threshold. Therefore, our results are in line with the results of Pasiouras et al. (2009), who argued that the empowerment of supervisors may be associated with corruption or other factors that hamper the operations of banks. Hence, bank supervisions may disadvantage the development of banks (Barth et al. 2003) and may have a negative impact on the stability of the banking sector as a whole (Pasiouras et al. 2006).

Our second empirical model also has a good adjustment, R2 varying between 0.526 and 0.667.

Conclusion. This research paper examines the impact of regulation and supervision exercised by the authority of control on the stability of the banking sector as a whole. We used data from 14 banks from Moldova (all banks in the Moldovan banking sector), over a period of 14 years: from 2000 to 2014. Our research question is: the banking supervision: can it reduce the risk-taking of banks and consequently ensure the stability of the banking sector?

The existing literature on the impact of banking regulation and supervision on stability and risk-taking remains ambiguous. The empirical results of our research on Moldova, a small, very open economy, vulnerable to external shocks, given its dependence on countries of the European Union (Romania, Germany, Italy), show the following: strengthening restrictions on the activities of banks increases the stability of the banking sector of Moldova. On the other hand, the power and independence of the supervisory authority does not promote the stability of Moldovan banks.

Moreover, the capital buffer (the difference between the total risk-weighted capital and the minimum ratio of capital required) ensures the stability of the banking sector and reduces the risk-taking of banks. Shim (2013) argues that excess capital acts as an insurance against costs that could arise from unexpected shocks to the capital and, moreover, against the difficulties in increasing the level of capital. Moreover, banks have an interest in maintaining a level of excess capital in order to avoid the costs associated with situations like, for example, violation of minimum requirements of regulatory capital, which triggers intervention of the supervisory authority and sometimes may even lead to the liquidation of the bank (see, for e.g. Furfine, 2001) and therefore the disruption of the banking sector as a whole.

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ANNEX 1

Definition and sources of variables

Variable	***Description***		***Source***
Dependent variable	ZiA	The natural logarithm of the Z-index for ROA. Z-index for ROA = [(return on assets + ratio of capital to assets) / standard deviation of the return on assets)]. A value of higher Z-score (Z-index) implies a lower probability of insolvency.	Bankscope Database (version 2015), authors' calculations
	ZiE	The natural logarithm of the Z-index for ROE. Z-index for ROE = [(return on capital + ratio of capital to assets) / standard deviation of the return on capital)]	Bankscope Database (version 2015), authors' calculations
	VOL_ROA	The volatility of economic profitability: the standard deviation of ROA for every three years.	Bankscope Database (version 2015), authors' calculations
	VOL_ROE	The volatility of financial profitability: the standard deviation of ROE for every three years.	Bankscope Database (version 2015), authors' calculations
Explanatory variables	Restr	The summation of the restriction values on banking activities: this index is composed of four items (securities, Insurance, real estate, nonfinancial firm ownership), and each item has four options that take the following values (Unrestricted (1); Permitted (2); Restricted (3) and Prohibited (4)).	Database of the regulation and supervision of the World Bank; Barth et al. (2013)
	Pow_Superv	The summation of the values of the power of supervisors. This index is calculated using the answers to these questions: (1) Does European central bank (ECB) supervises banks? (2) What body/agency supervises banks? (a) The central bank, (b) A single bank supervisory agency, (c) Multiple Bank supervisory agency. (3) Is there a single financial supervisory agency for all of the main financial institutions (insurance companies, contractual savings institutions, savings banks)? If yes, what is its name? (4) Is there a single financial supervisory agency for all of the activities in which commercial banks are allowed to do business? (5) Does your country adopt Basel II? (6) Is your country planning on adopting Basel III?	Database of the regulation and supervision of the World Bank; Barth et al. (2013)

	Indep. AutCNT	The summation of the values of the independence of supervisory authorities of political power, as well as of influence from large banks, this index is indicated and based on the following questions: (1) To whom are the supervisory bodies responsible or accountable?: (a) the Prime Minister, (b) the Finance Minister or other cabinet level official, (c) a legislative body, such as Parliament or Congress, (d) other. (2) How is the head of the supervisory agency (and other directors) appointed?: (a) the decision of the head of government (e.g. President, Prime Minister), (b) the decision of the Finance Minister or other cabinet level authority, (c) a simple majority of a legislative body (Parliament or Congress), (d) a supermajority (e.g. 60%,75%) of a legislative body, (e) other). (3) Does the head of the supervisory agency (and other directors) have a fixed term? (4) Can the head of the supervisory agency can be removed by: (a) the decision of the head of government (e.g. President, Prime Minister), (b) the decision of the Finance Minister or other cabinet level authority, (c) a simple majority of a legislative body (Parliament or Congress), (d) a supermajority (e.g. 60%, 75%) of a legislative body, (e) other).	Database of the regulation and supervision of the World Bank; Barth et al. (2013)
	IG_Superv	Global index of supervision = (Σ Restr * Σ Pouv_Superv * Σ Indep.AutCNT) = Restr+Pouv_Superv + Indep.AutCNT	Database of the regulation and supervision of the World Bank; Barth et al. (2001, 2004, 2006, 2008, 2013)
	Buffer	The difference between the total risk weighted capital and the minimum ratio of capital required.	Annual reports of banks of Moldova, (calculated)
	Size	The log of total assets.	Bankscope Database (version 2015), authors' calculations
	Growth_ Assets	The variation of total assets compared with the value of the previous year = (TotalActif t1 - TotalActif t0) / TotalActif t0.	Bankscope Database (version 2015), authors' calculations
	RLL_TL	Reserves for loan losses / gross loans.	Bankscope Database (version 2015)
	NPL_TL	Non-performing loans / total equity. A higher value indicates a more risky loan portfolio.	WDI, version 2015
	LiqAssets_TA	The ratio of liquid assets to total assets.	Bankscope (version 2015)
	Depo_Assets	The ratio of bank deposits to the bank's total assets.	Bankscope (version 2015)
	Gouv	Binary variable that takes the value of 1 if the bank is controlled by the government and 0 if otherwise.	Proposed by the authors
	Cycle	Real rate of GDP growth	WDI, version 2015
	Infl	The inflation rate	WDI, version 2015

Source: author

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