Basis of implementation of improving financial stability in the banking system in Iraq

Bases de la implementación de la mejora de la estabilidad financiera en el sistema bancario en Irak

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ABSTRACT

The purpose of the article is the scientific substantiation of the perspective directions of realization of the increase of financial stability of the banking system of Iraq in the modern conditions. The study of the theoretical foundations of financial stability made it possible to concretize the principles of financial stability for states with a low level of socioeconomic development, in particular, Iraq. Correlation and regression analysis of statistical indicators of the banking system of Iraq demonstrated the presence of negative trends and a low level of financial stability. Recommendations are formulated to ensure the financial stability of the banking system of Iraq.

Keywords: indicators, financial system, liquidity, bank assets, capital, crisis, imbalance

RESUMEN

El propósito del artículo es la fundamentación científica de las perspectivas de realización del aumento de la estabilidad financiera del sistema bancario de Iraq en las condiciones modernas. El estudio de los fundamentos teóricos de la estabilidad financiera permitió concretar los principios de estabilidad financiera para los estados con un bajo nivel de desarrollo socioeconómico, en particular, Irak. El análisis de correlación y regresión de los indicadores estadísticos del sistema bancario de Irak demostró la presencia de tendencias negativas y un bajo nivel de estabilidad financiera. Las recomendaciones están formuladas para garantizar la estabilidad financiera del sistema bancario de Irak.

Palabras clave: indicadores, sistema financiero, liquidez, activos bancarios, capital, crisis, desequilibrio.

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Introduction

One of the main tasks of financial science is the rapid and timely development of new activities, models for the development of all elements of the financial sphere to solve specific, situational problems, as well as the statistical justification of preventive measures to prevent or significantly mitigate the various negative factors that periodically lead the financial sector to shocks and cataclysms. A decisive role in ensuring macroeconomic and microfinance stability belongs to the banking system and its institutions that ensure financial and economic equilibrium and sustainable economic development (Lee & Hsieh, 2014). The financial and economic crisis of 2008-2009 has very sharply put the problem of maintaining the financial stability of the banking system of any country and the methods and methods of its provision. Especially relevant these issues are considered for countries with a low level of socio-economic development, the banking system of which is not strong enough (Report, 2016). The economic systems of countries with the least economic development and developing countries are extremely vulnerable to the impact of globalization factors, which increases the risk of financial instability in these countries. This risk manifests itself in the initial period of financial liberalization in developing countries. Accordingly, the main task of countries with so-called newly created markets is to minimize the degree of vulnerability from external shocks and from the changing positions of foreign investors, who send large flows of capital to these countries. Such states include Iraq, where the banking sector is characterized as the most undeveloped in the Middle East of North Africa (for example, according to statistics, more than 80% of the population do not have a bank account (Asia, n.d.). In this regard, the level of financial stability of the banking system is extremely low, which further exacerbates the negative situation in the financial and economic spheres. All this predetermines the need to study the current trends and patterns of the functioning of the banking system, the scientific justification and the development of methodological bases for implementing the enhancement of financial stability in the banking system in Iraq in modern conditions.

Fundamentals of the financial theory of the stability of the banking system

Although the term "financial stability" appeared in the 90s of the last centuries, there is still no unambiguous definition, which leads to significant disagreements in its interpretation, as well as the definition and development of concrete statistical indicators that characterize the state and ensure financial stability. The problems of studying the indicators of financial stability were considered in the works of such domestic and foreign scientists (Bordo & Mccauley, 2017; Fleming & Sarkar, 2014; Jones, n.d.; Lee & Hsieh, 2014; Vives, 2017). However, issues of generalization of existing approaches to the determination of indicators and principles of financial stability and choice of the optimal method for analyzing the situation in the financial sphere for the purpose of avoiding financial crises and ensuring national security remain disputable and unresolved.

In the conditions of cardinal change of the paradigm of ensuring the stability of the financial system, namely, awareness of the need to use a systematic approach to the possibility of achieving and long-term maintenance of the target level of financial system stability at both national and international levels, it is also important to pay attention to the methodology for ensuring financial stability at the level of the banking system as a fundamental element of the financial system.

Issues of financial stability are most often studied from the viewpoint of the microlevel (primarily from the standpoint of a particular bank) and, accordingly, insufficient attention is paid to the substantiation of the methodology for ensuring the financial stability of the banking system as a whole, taking into account the characteristics of the external environment. One of the fundamental aspects of the conceptualization of the process of ensuring financial stability is the justification of the principles of its organization. Principles, reflecting the essential characteristics of the object of cognition, are the basis for constructing a scientific theory that determine the methods and techniques of the cognitive process that characterize the ways in which laws and regularities are used in accordance with the goal setting.

The analysis of the theoretical aspects of financial stability can be divided into five principles, which should be used as the basis for the definition of this concept, and, therefore, are taken into account in the process of constructing the system for its provision, namely ("Финансы региона," 2014):

> 1) financial stability concerns all elements of the financial system infrastructure, institutions and markets);

> 2) the financial system not only effectively performs the functions of allocating resources and risks, mobilizing savings and accumulating wealth, but also ensures the smooth operation of the payment system;

> 3) financial stability is not only the actual absence of financial crises, but also the ability of the financial system to limit, restrain and manage existing imbalances in time, before they damage economic processes;

4) financial stability should be considered first of all from the position of its influence on the real sector of the economy. If violations in the functioning of financial markets or institutions do not pose a threat to the real economy, they should not be regarded as a threat to financial stability;

5) the financial system should be viewed from the positions of the time space (continuum).

Investigating the formation of the institutional component of the system of ensuring financial stability, outline such fundamental principles: rational use of resources, effective management; healthy competition; a clearly functioning legal and judicial system; good corporate governance practices; developed payment and settlement system; the current code of business ethics (Donner & Schwarz, 2018).

We believe that for an effective process of ensuring financial stability, it should be based on the following principles:

* Effectiveness (to ensure the effective allocation of financial resources);

 * Duration and predictability (financial stability should be maintained during the medium and long-term periods);

* Adequacy (the forms and methods of allocating financial resources must correspond to the diversity of the needs of economic agents in them);

* Transparency (the actions of government should be as transparent as possible);

* Coordination (measures of the mechanism for ensuring financial stability must be consistent with the goals and activities of other policies);

* Accountability (the central bank should be responsible for the effectiveness and effectiveness of measures to ensure financial stability).

 In addition, ensuring financial stability at the level of the banking system can be achieved by observing specific principles such as:

* The principle of adaptability, which requires the systematic monitoring and assessment of the likelihood of realizing threats to the financial stability of the banking system and each bank, predicting their consequences for the timely correction of elements of the internal adaptation mechanism, namely the specification of objects, tools and methods of influence.

* The principle of balanced profitability, that is, targeting the optimal level of profitability of activities, sufficient to maintain an adequate level of income, provided insurance of the credit institution and counterparties (customers, partners, taxpayers) from excessive accumulation of risks;

* The principle of economic responsibility, which consists in creating balanced and long-term business relations with customers, harmonizing the interests of the banking system and society, relying on economic efficiency and social justice.

For the purpose of sustainable long-term development of the banking system, it is necessary to ensure the quantitative and qualitative redundancy of instruments to ensure financial stability in relation to real and potential threats. It should be noted that the banking system as an integral element of the state economy under market conditions operates under the influence of various factors of the external and internal environment.

At the same time, the influence of such factors is constantly changing due to the market laws of economic activity, competition, the activities of other various institutions that provide services in the financial market, etc.

 Crisis phenomena also have a significant impact on the banking system, which are a concomitant attribute of imperfect business economic activity and mechanisms for its regulation under market conditions ("Document of The World Bank Group FOR OFFICIAL USE ONLY Report No . 73265-IQ Public Disclosure Authorized INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT INTERNATIONAL DEVELOPMENT ASSOCIATION INTERNATIONAL FINANCE CORPORATION Public Disclosure Author," 2012).

Considering the importance of banks' influence on the development of other business entities and the vulnerability

of the banking system to external factors, it is important to determine the assessment of financial stability. Such an assessment can be both a reflection of qualitative changes in the development of the banking system and a means for making a possible comparison of its functioning both from the point of view of different time intervals and from the point of view of the dynamics of various indicators of banking and economic activity (Public, 2017).

The study allowed us to identify the main indicators of financial stability of both the banking system and the economy as a whole, as well as determine the dynamics of their changes before the crisis (Table 1).

Table 1 Dynamics of the main indicators of financial instability before the crisis

(developed according to the data of (Intermediation, Anginer, Demirguc-kunt, & Zhu, 2014; "Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities 12," 2017))

Indicator Group	Indicator	Dynamics before the crisis
Internal macroeconomic policy	GDP growth rate	decrease
	The growth rate of output	decrease
	Budget deficit,% to GDP	growth
	Unemployment rate	growth
External economic conditions	Balance of current account balance of payments	decrease
	Exports of goods and services	decrease
	Imports of goods and services	growth
	Trade balance	decrease
	Gold and currency reserves	decrease
	Capital flight	growth
	External debt	growth
	Net outflow of capital	growth
	Balance of payments deficit	growth
Fundamental indicators	Supply of money	growth
	Sufficiency of reserves	growth
	Monetary multiplier	growth
	Monetization of the economy	growth
Indicators of financial system stability	Internal loans	growth
	Ratio of loans to deposits	growth
	Liquid assets of banks to deposits	decrease
	Z-rating of probability of default of the banking system	growth
	Deposits	decrease
Shocks affecting the financial sector	Inflation	growth
	Exchange rate	growth
	Internal interest rate in the interbank lending market	growth
	Rate of interest loans to the rate on deposits	growth
	terms of trade	decrease
Pressure on the foreign exchange market	Index of pressure on the foreign exchange market	growth

All indicators were grouped into several categories depending on their characteristics:

- indicators characterizing the internal macroeconomic policy;

- indicators characterizing foreign economic conditions;

- Fundamental indicators;

- indicators of the stability of the financial system;

• indicators that characterize the shocks affecting the financial sector;

• indicators characterizing the pressure on the foreign exchange market.

The key indicators that reflect the level of financial stability of the banking system, in our opinion, are:

1. **_Z-rating of the probability of default of the banking system_** - an index that reflects the probability of default of the country's banking system. Z-score compares the buffer of the country's banking system (capitalization and profitability) with the variability of these revenues. It is estimated as:

$$Z = \frac{ROA + (capital/assets)}{ROA} \quad (1)$$

where is the ROA standard deviation?

ROA, capital and assets are aggregated at the country level.

2. **_Bank loans as a percentage of bank deposits_** are financial resources provided to the private sector by national money banks as a proportion of total deposits. The calculation includes commercial banks and other financial institutions that accept transferable deposits, such as demand deposits. Total deposits include demand and savings deposits in banks.

3. **_Liquid assets of banks to deposits and short-term financing_** - the ratio of the value of liquid assets (easily convertible in cash) to short-term financing plus total deposits. Liquid assets include cash and balances with banks, trading securities that are measured at fair value through profit, loans and advances to banks, reverse repurchase agreements and cash collateral. Deposits and short-term financing include general customer deposits (current, savings and term deposits) and short-term loans (money market instruments and other deposits).

Contemporary conditions for the development of the banking system of Iraq

As already mentioned above, the Iraqi banking system is underdeveloped. In addition to internal negative trends, external factors have influenced its development. Economically, Iraq remains heavily dependent on its oil sector. The table shows the main indicators of the development of the financial system of Iraq.

Table 2 - Dynamics of indicators of development of the financial system of Iraq (Asia, n.d.; Intermediation et al., 2014)

Indicators	Units of measure-ment	2013	2014	2015	2016
G D P	Billions of US dollars	235,	234,6	179,6	171,5
growth in GDP	%	6,6	0,7	4,8	11,0
Inflation (CPI)	%	1,9	2,2	1,4	-
unemployment	%	15,1	15,0	15,5	16,0
Foreign direct investment	%	2,2	2,0	1,8	0,1
Current account balance	% of GDP	22590,3	24427,8	4121,3	3843,1
State debt	$ M	31,2	32,0	55,1	66,9
Net lending / borrowing	% of GDP	-	-2,7	-5,6	-6,9
Tax revenues	% of GDP	-	0,9	1,2	2,0
State consumption	% of GDP	21,0	18,3	22,3	23,0
Expenditure on health care	% of GDP	3,7	3,3	-	-
Military expenditures	% of GDP	3,3	3,0	5,3	3,6

The huge increase in public spending - due to increased military spending to fight terrorism - and the sharp decline in world oil prices since the second half of 2014 are key reasons to the current economic problems in Iraq. Investments and private business are hampered by security problems, obsolete legislation, widespread corruption and collapsing infrastructure.

The banking system of Iraq is dominated by state-owned banks. The main problems of this segment are associated with low capitalization, especially in the case of Rafidain Bank and Rasheed Bank. Private banks are small, and their activities are focused on retail and wholesale trade in the short term. The professionalism of private banks is being questioned by the Central Bank of Iraq regarding their real potential in supporting economic growth. Regulation, related to capital requirements, which must be observed by private banks, favors state banks to monopolize the banking sector. In addition, the effectiveness of banking supervision is questioned, and audit standards are weak. The general mistrust of the banking system is due to the absence of deposit insurance, bankruptcy of Warka Bank and losses recorded by the two main banks ("Стабилизация валютно - финансового рынка как необходимое условие перехода к устойчивому," 2016)

Other internal problems faced by the Iraqi banking systems can be formulated as follows:

• Gaps in the collection of data on banking operations in the northern region (Iraqi Kurdistan).

• Role and actions of party transactions - a set of majority shareholders uses bank funds for their own projects.

• Low financial infrastructure is associated with a lack of skills and technology.

In addition, the increase in the export of state deposits, the high migration of citizens for the reduction of the number of branches of the bank to 840 branches in various Iraqi governorates, a reduction in 194 bank branches, which led to a reduction in the monetary block to 65.4 trillion dinars at the end of 2015 compared with the monetary unit in the amount of 72.7 trillion dinars at the end of 2014. The capital adequacy ratio decreased in private banks by 4% -11% respectively, while the high ratio of deposits in state-owned banks indicates public confidence in these banks, because they are 100% guaranteed by the government. Deposits of the private sector (both in public and private banks) amounted to 10.3% of GDP at the end of 2015, which is 19.9 trillion dinars, this indicates a continuing weakness of financial depth, which does not contribute to the creation of a strong and strong financial sector. Bank capital grew in Iraq from 9.1 trillion dinars in 2014 to 10.1 trillion dinars in 2015 and amounted to 5.2% of GDP, however, this figure and growth is considered small (Asia, n.d.).

The regulatory body in Iraq is the Central Bank of Iraq, which fulfills its regulatory, supervisory and control role in banks and financial intermediary institutions to maintain financial stability of the system based on market competition, to achieve internal price stability, maintain low inflation rates, etc. The number of banks reached 26, most of which were able to meet the minimum capital requirement set by the Central Bank of Iraq. The ratio of the capital of private banks to GDP is 4.1%, while this ratio for state-owned banks was 1.1%, which is a very small indicator (Asia, n.d.). We selected three indicators of financial stability of the banking system mentioned above, for which we carried out a correlation analysis of the dependence on the main indicators of the development of the financial and economic system (table 3).

Table 3 - Correlation coefficients of the dependence of the financial stability of the banking system of Iraq on the main macroeconomic indicators

Indicators	Z-score	Bank loans to deposits	Liquid assets of banks to deposits
Exchange rate / to dollar	-0,43288	-0,79364	-0,33061
Bank credit to the private sector as a percentage of GDP	0,814286	0,826415	0,086482
Direct foreign investments	-0,02254	0,287775	0,398164
Gross domestic product	0,390458	0,611983	-0,03522
Export of goods and services	-0,0046	0,192796	-0,07989

Import of goods and services	0,017166	0,32617	0,388831
Interest income of banks,% of assets bearing interest	-0,52201	-0,69385	0,036718

The analysis of the obtained results allows to conclude that the indexes most influenced by the Z-score are such indicators as the exchange rate / to the dollar, bank loans to the private sector, gross domestic product, interest income of banks, % of assets bearing interest. On the indicator Bank loans to deposits - most impact on the same indicators. The liquid assets of banks to deposits showed a lack of high dependence on all analyzed indicators, but there is a small direct link to foreign direct investment and the import of goods and services.

Based on the obtained results, we conducted the construction of economic and mathematical models of indicators characterizing the dynamics of the indicators of financial stability of the banking system of Iraq (Figures 1-3).
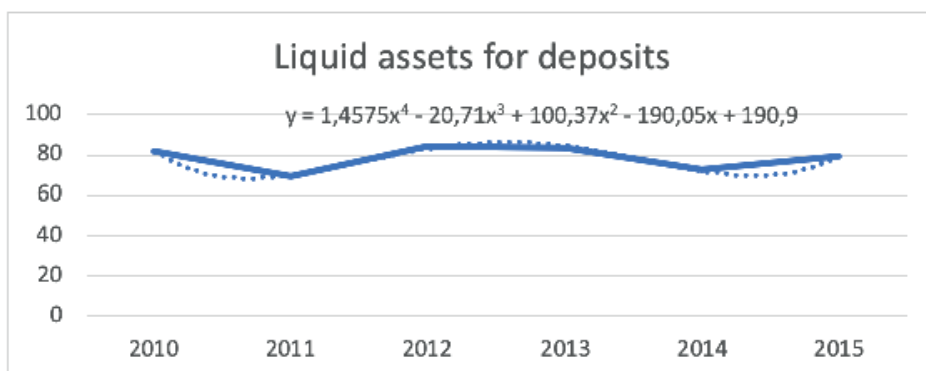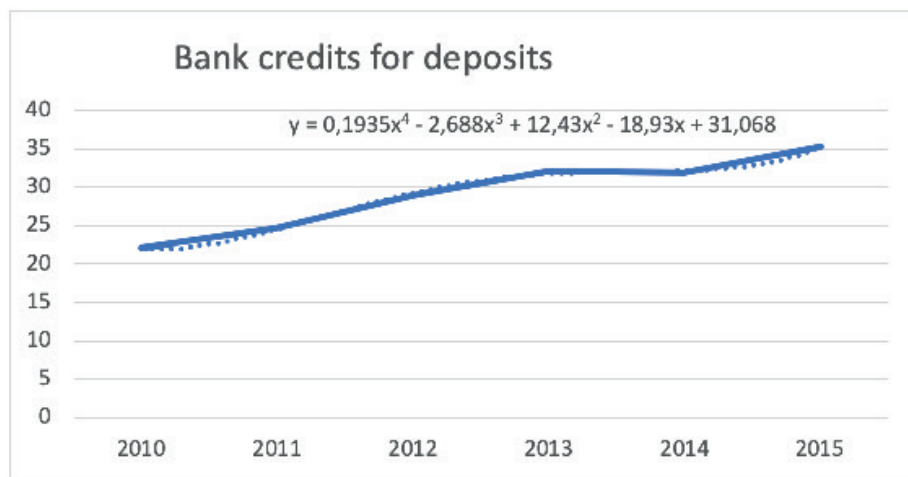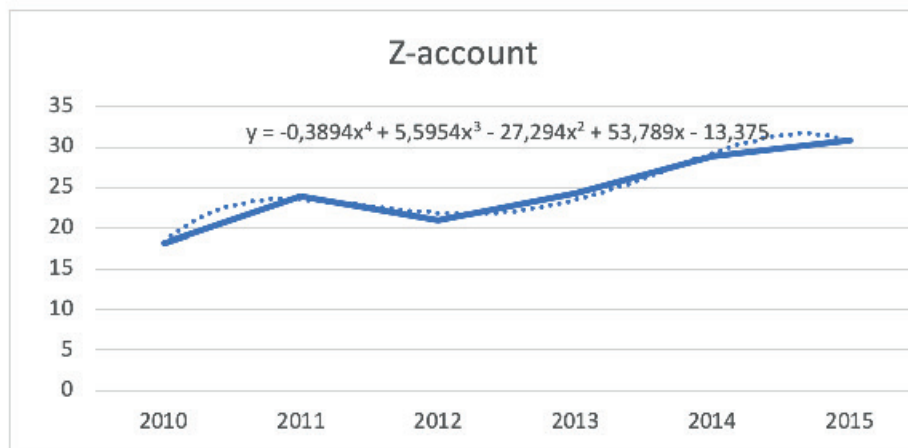

Figure 1 - Graphical representation of the economic and mathematical model of the dependence of indicators of financial stability on macroeconomic indicators

As we see the indicators characterizing the financial stability of the banking system demonstrate a pre-crisis state. To overcome this situation, the conceptual approach should be that the banking sector should become a financially stable, profitable system that performs the function of optimal redistribution of capital in the economy and is the main creditor of its intensive development. That is, the banking system should be an effective tool for achieving macroeconomic priorities of the state.

Directions of increasing the financial stability of the banking system

For this, it is necessary, on the one hand, to "treat" the obsolete structural illness through the implementation of a new economic policy and industrial policy, which will create a sound economic basis (the client base) for the functioning of the banking system; on the other, correction of monetary, currency and banking regulation mistakes and transition to a new concept of central banking - stimulating bank lending for industrial development of the economy.

It is important to follow the principle of advance caution, which consists in preventing the banking system and its subjects of the consequences (first of all, unexpected financial losses) of a potential change in the market situation by forming reserve funds in advance, taking into account the dynamics of activity and the level of systemic importance of banks. The content of this principle is based on the fact that countercyclical regulation, although it is not a complete guarantee to prevent the destabilization of financial institutions, however, restrains them from excessive growth of risky assets in conditions of economic recovery.

It is also important to increase the level of capitalization of banks by attracting new shareholders, increasing the reserve fund, the result of activities, activating the processes of pooling banks, and intensifying the procedure for reorganizing banks by merging and merging small and financially unstable banks. It is necessary to build up capital openly and publicly so that the population knows the organizational form of banks, their owners, including real ones. In addition, banks should publish their own assets on a monthly basis, make extensive use of the stock market to determine the real value of bank shares. The range and volume of services provided by banks remain very limited - whereas modern business conditions require new forms and methods of bank support ("Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities 12," 2017). In industrialized countries, a wealth of experience of innovation has been accumulated, including that of banks, some of which are of undoubted interest and can be successfully used to take into account the specific conditions of Iraq.

Conclusion

Summarizing the above, we can draw the following conclusions about the fact that the financial sector in Iraq remains insufficiently developed and inefficient. The banking system is by far the most important part of the financial system, accounting for more than 75 percent of assets, largely owned by the state. Non-banking institutions and markets are small and underdeveloped. Access to finance is hampered by a weak financial infrastructure that needs to be strengthened in all areas: the credit registry, the security mechanism, judicial systems, accounting and auditing skills.

The financial stability of the banking system in Iraq is also characterized by negative trends. The correlation analysis made in the article made it possible to identify the macroeconomic indicators most influencing this situation. The formulated directions of enhancing the financial stability of the banking system will allow to ensure an efficient and reasonable distribution of resources by the financial system is crucial for increasing productivity, intensifying economic development, expanding equality of opportunity and reducing poverty.

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