MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

AZERBAIJAN STATE ECONOMIC UNIVERSITY

INTERNATIONAL MAGISTRATION AND DOCTORATE CENTER

"Evaluation and Forecasting of Financial Stability of Azerbaijani Companies" on the topic

MASTER DISSERTATION

Mustafayeva Irada Macid

BAKU – 2020

THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

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MASTER DISSERTATION

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BAKU – 2020

Oath of science

I Irada Mustafayeva swear that I have written my master's dissertation on "Evaluation and Forecasting of Financial Stability of Azerbaijani Companies" in full compliance with scientific ethics and rules of reference and reflecting all the sources I use in the bibliography.

AZƏRBAYCAN ŞİRKƏTLƏRİNİN MALİYYƏ SABİTLİYİNİN QİYMƏTLƏNDİRİLMƏSİ VƏ PROQNOZLAŞDIRILMASI

XÜLASƏ

Tədqiqatın aktuallığı: Mövzu, maliyyə sabitliyinin qiymətləndirilməsi və müəssisələr üçün proqnozlaşdırma baxımından çox aktualdır. Tədqiqat təşkilatlar üçün maliyyə sabitliyinin qiymətləndirilməsi ilə başlayır və sonra nisbətən daha uzunmüddətli dövrdə maliyyə sabitliyini proqnozlaşdırmağa davam edir. Təcrübədə bu, müəssisələrin uzunmüddətli maliyyə sabitliyinin mövcud vəziyyətin qiymətləndirilməsindən başlayaraq, hazırkı vəziyyət barədə proqnozlar hazırlamaqla edilə biləcəyi ilə eyni şəkildə edilir.

Tədqiqatın məqsədi: Ölkədə oxşar bir araşdırma olmasa da, digər ölkələr geniş öyrənilmişdir. Əvvəlcə nəzəri əsaslar maliyyə sabitliyi proqnozunun necə aparılacağını müəyyən edən kitablar və akademik jurnallar tərəfindən qurulmuş və təklif edilmişdir.

İstifadə olunmuş tədqiqat metodları: Tədqiqat zamanı elmi analiz metodları, sintez, qruplaşdırma, müqayisə, proqnozlaşdırma, müxtəlif analitik və statistik nümunələrdən istifadə edilmişdir.

Tədqiqatın informasiya bazası: Tədqiqatın məlumat bazası yuxarıda müzakirə olunduğu kimi maliyyə sabitliyi nəzəriyyələrindən irəli gəlir. Nəzəriyyələr əsasən maliyyə nisbəti təhlili və iş fəaliyyətinin təhlilinə əsaslanır.

Tədqiqatın məhdudiyyətləri: Tədqiqatın məhdudiyyətləri Azərbaycan dilində mövzuya dair kifayət qədər materialın olmamasıdır.

Tədqiqatın elmi yeniliyi və praktiki nəticələri: Tədqiqat praktik əhəmiyyət də verir, çünki Paşa Holdinq tapıntılardan faydalı məlumat toplaya və bu nəticələri şirkətin gələcək işlərində tətbiq edə bilər.

Nəticələrin istafadə oluna biləcəyi sahələr: Əsasən fərqlər həm tədqiqatın məqsədləri, həm də iqtisadiyyatın təkamül nəzəriyyəsi və dinamik sistemlər nəzəriyyəsi çərçivəsində müəllif yanaşmasının xüsusiyyətləri ilə əlaqələndirilmişdir. “maliyyə sabitliyi”

Açar sözlər: Mənfəətlilik, maliyyə, proqnoz

EVALUATION AND FORECASTING OF FINANCIAL STABILITY OF AZERBAIJANI COMPANIES

SUMMARY

The actuality of the subject: The topic is of high relevance to the financial stability evaluation and forecasting for businesses. The research starts with the evaluation of a financial stability for organizations and then moves on to forecast financial stability in the relatively longer-term. In practice, this is done in the same manner as the long-term financial stability of businesses can be done by starting with the evaluation of the current situation and then building forecasts on the current situation.

Purpose and tasks of the research: Although there is not a similar research in the country, other countries have been studied extensively. Firstly, theoretical foundations have been built and proposed by books and academic journals which specify how financial stability forecasting should be conducted.

Used research methods: Scientific analysis methods, synthesis, grouping, comparison, forecasting, analytical and statistical samples were used during the research.

The information base of the research: The information base of the research comes from theories of financial stability as discussed above. Theories are mainly based on financial ratio analysis and the analysis of business performance.

Restrictions of research: The limitations of the research are that there is not enough material on the topic in the Azerbaijani language.

The novelty and practical results of investigation: The research also provides practical significance as Pasha Holding can glean useful information from the findings of it and can apply these findings in the future work of the company.

Scientific-practical significance of results: Essential differences have been identified related both to the objectives of the research and to the specifics of the author's approach in the framework of the evolutionary theory of economics and the theory of dynamic systems, which were applied to the concept of "financial stability".

Keywords: Profitability, finance, forecast

ABREVIATIONS

AR	Azerbaijan Republic
CB	Central Bank
ESG	Environmental, Social, and Governance
BMT	Birləşmiş Millətlər Təşkilatı
TFRS	Türkiye Finansal Raporlama Standartları

CONTENTS

INTRODUCTION

Relevance of the research topic: The topic is of high relevance to the financial stability evaluation and forecasting for businesses. The research starts with the evaluation of a financial stability for organizations and then moves on to forecast financial stability in the relatively longer-term. In practice, this is done in the same manner as the long-term financial stability of businesses can be done by starting with the evaluation of the current situation and then building forecasts on the current situation.

Additionally, the research looks into the financial stability of businesses in Azerbaijan which should be highlighted in particular. A similar research has not been found for the country to the best of the knowledge of the researcher. Therefore, this research adds value to the existing body of research by evaluating financial stability of the biggest holding company which has many subsidiaries and have a substantial impact on the financial stability of the country as well and the outcome of this research will be important to evaluate the financial stability in the country as well from the perspective of private businesses.

Financial stability of businesses is of paramount value in order for them to operate in the long-term. In order to make sure that a business is sustainable in the long-term, it is important that financial stability is achieved. The financial crisis of 2008-2009 also demonstrated the importance of achieving a financial stability. Therefore, businesses across the world concentrate on highlighting the importance of financial stability in the long-term as opposed to short-term profitability. Those who do not realize the importance of doing so are doomed to failure in the long-term.

Additionally, businesses also need necessary tools in order to forecast financial stability. Without forecasting, it is not possible to gain an insight into possible long-term dynamics of the business's operations which puts a particular emphasis on forecasting. Financial reports and other available information on the general economy of a country where the business is located are useful sources for forecasting.

Statement of the problem and learning level: Although there is not a similar research in the country, other countries have been studied extensively. Firstly, theoretical foundations have been built and proposed by books and academic journals which specify how financial stability forecasting should be conducted.

In addition, forecasting techniques have also been studied to a significant extent and these techniques have been applied both in practice and theory.

Finally, empirical researches have been done in regards to the effect of financial stability and its forecasting.

To demonstrate, Brammertz et al., (2011), Campbell (2017), Connolly (2006), Dlabay&Burrow (2007), Gibson (2008), Joseph (2013), Lumby& Jones (2003), Matz& Neu (2006). McBurney & White (2009), Gibson (2008), Joseph (2013), Lawrence& Kimberg (2010), Lumby& Jones(2003) and many others have produced research papers and written books in the area and the knoweldge base for this research has been based on their work.

In sum, it should be highlighted there is a substantial amount of extant research in the area that will be used by the researcher during the course of this work.

The objective of the dissertation: There are several objectives of this dissertation as discussed below.

- Firstly, theoretical base for financial stability and forecasting will be provided in the first chapter of the dissertation. This theoretical base will provide foundation for the further analysis in the dissertation.

- Secondly, the dissertation aims to evaluate the financial stability of the selected company. As this company contributes to the economic life and financial system of the country significantly, it can be assumed that investigating this big holding (Pasha Holding) will enable the researcher to assess the financial stability of the businesses in the country to a considerable extent.

- Thirdly, financial stability of the selected company will be forecasted based on forecasting techniques used in the literature and industry.

- Finally, another objective of the research is to give policy advice to the company with regards to improving financial stability in the long-term.

The main tasks of the dissertation: The main tasks of the dissertation also arose from the main objectives of it as discussed below.

- To review and analyze theories and empirical findings in the area so that financial stability and forecasting of it can be understood in a more in-depth way.

- To apply the obtained in-depth knowledge from theories and empirical findings to the company selected. This will allow to evaluate the financial stability of the company.

- To build a financial model of financial stability of the company by forecasting key financial stability indicators of the company.

- To develop a feasible and well thought-out policy recommendations for Pasha Holding in terms of improving its financial stability.

The subject of the research: The main subject of the research is Pasha Holding LLC which is the company that is to be analyzed in the study. Furthermore, the theory of financial stability, financial ratio analysis, forecasting techniques and so on will also constitute the basis of the subject of the research.

The theoretical and methodological foundations: Several theoretical and methodological foundations will be relied on for the completion of the study. First of all, the approaches to financial stability will be reviewed and these approaches and prepositions constitute the theoretical foundation of the research.

Secondly, financial ratio analysis should be mentioned. Ratio analysis stands at the core of the financial stability analysis of companies. In order to assess financial stability of businesses, it is essential to evaluate their financial statements such as balance sheet, income statement and cash flow statements in order to arrive at a complete picture of the situation and have a conclusive thought regarding the financial stability of the company.

Additionally, general business management analysis and theoretical approaches to it will be used in the study as well because these concepts are also of high relevance for this study. For example such things as:

- Liquidity Management;
- Free-cash flow management;
- Creditworthiness analysis;
- Borrowing capacity;
- Solvency indicators;
- Profitability management;
- Operational issues.

are all relevant and important factors in order to asses financial stability of the company and forecast it. Therefore, these areas of financial management will also be a part of theoretical foundations of the study.

What is more, forecasting methodology also constitutes the basis of this research. There are several methods of forecasting and some of them are free cash flow valuation models, residual income models, relative valuation models and asset-based approaches.

These approaches have been referred to in forecasting the financial stability of Pasha Holding. However, free cash flow valuation models have been main method of forecasting for the research.

Hence, a number of theoretical methods as well as empirical analysis in the cases of other countries constitute the basis of this research theoretically and methodologically.

The information base of the dissertation: The information base of the research comes from theories of financial stability as discussed above. Theories are mainly based on financial ratio analysis and the analysis of business performance.

Empirical studies also have been used in putting the research together meaning that the previous research in the same area have been referred to for the construction of the approach of the study.

In short, both theory and works of others have been referred to for the completion of this research.

The scientific novelty: This research provides high novelty due to the following reasons.

To begin with, previous research does not exist where the financial stability of companies in Azerbaijan is evaluated and forecasted at the same time. Some research assess the financial stability of the businesses but forecasting has not been done for the same companies meaning that a novelty of the research can contribute to the currently existing literature.

Secondly, the selected company has not also been assessed in a holistic way with its all subsidiaries together. Therefore, this research is ambitious in contributing to the extant literature.

The practical significance: The research also provides practical significance as Pasha Holding can glean useful information from the findings of it and can apply these findings in the future work of the company.

Financial stability and forecasting are necessary for all businesses and this research, therefore, would contribute in this area for Pasha Holding.

CHAPTER I. THEORETICAL REVIEW OF EVALUATION AND FORECASTING OF FINANCIAL STABILITY

1.1. Importance of financial stability of an organization

Financial stability is defined as a concept that covers many areas of the business. Profitability, liquidity and solvency, for example, are important areas where stability must be achieved so that the business can operate in the longer-term. Financial stability is of high value for business for variety of reasons (Gibson C., 2008: p.122).

Firstly, most businesses set to operate in the long-term and be profitable for a long period of time. Thus, except for a few short-term projects, businesses aim to be operational in the long-term. Therefore, being profitable for a long period time, in other words, having stable or growing profits is important for a business to stay afloat.

Another reason why businesses need financial stability is related to their liquidity. Liquidity is an ability of a business to pay off it short-term debt with its short-term assets. If this can be done comfortably, a business can operate without an impediment in the short-term.

However, problems with liquidity transform to other areas of the business and although deemed as a short-term issue, liquidity can impede the stability of the business in the long-term as well (Joseph C., 2013: p.12). Therefore, having financial stability is crucial for a business because it would not be possible to be sufficiently liquid without financial stability.

Another key area which is even more closely related to the stability of a business is solvency or creditworthiness of a business. This is directly related to capital structure of a business. Several key stakeholders are interested in the solvency information about the business. For example, creditors are particularly interested in solvency as a means to get their loans back.

Moreover, creditors might decide to lend to the firm or not based on solvency information of the company.

Public is also interested in solvency of a business in order to assess the reliability of a business as a partner. Members of the public deem businesses more serious and worthwhile of engaging in a debate if these companies are solvent, in other words, are without major problems (Joseph C., 2013: p.13). This also illustrates how important solvency or financial stability of a company is.

In recent years, some other factors have also been found to be important for the stability of companies. These factors are called environmental, social and governance (ESG).

Responsible investment is widely understood as incorporating economic, social and governance considerations (ESG) into investment and decision-making processes.

ESG considerations cover a wide range of topics that are not typically part of fi nancial analysis, but may be financially relevant.The word ESG was first used in a lan dmark study called "Who Cares Wins" in 2005. ESG's portfolio today is valued at ove r $20 trillion in AUM, or about a third of all professionally managed capital around th e world, and its rapid growth is focused on the trend for Socially Responsible Portfoli o (SRI), which has been much longer around (Lumby S., and Jones C., 2003: p.241).

Nonetheless, unlike SRI, which is based on ethical and moral principles and pri marily uses negative indicators such as not investing in alcohol, tobacco or weapons, ESG investment is based on the assumption that ESG considerations are economically important.

In other words, being environmentally friendly, considerate of social causes as well as having transparent governance are definitely positive factors for businesses in the modern times.

1.2. Factors affecting financial stability of an organization

Financial stability of the company can be assessed using the financial statements and annual reports. Annual reports contain financial statements and these statements are used to obtain necessary data for the calculation and comparison of financial condition and performance of a business.

In addition, annual reports also contain information which is non-financial such as disclosures and this information can also be utilized to gain information about the quality of earnings and eventually, financial stability of the company (Brammerts W., et al., 2011: p.45). Therefore, financial reports will be the main source of the analysis for this research.

Financial stability analysis is conducted by using profitability, capital structure (leverage), liquidity and financial leverage effect assessments. Main indicators for each category is to be included in the study.

Forecasting is conducted by businesses to form expectations about the future and plan better both operationally and financially. Therefore, organizations should also engage in forecasting in order to gain insights into the financial stability in both short and long-term.

Some of the key factors that affect financial stability of an organization are summarized below.

Profitability

Profitability is the most watched indicator for businesses which measures the businesses' ability to generate profits from sales and the long-term profitability is an essential component of ensuring that a business stays stable.

Profitability is measured through various means but ratio analysis is the most frequently used tool to assess profitability.

Profitability ratios are a class of financial metrics that are used over time to mea sure the ability of a company to generate revenue compared to its expenses, operating

costs, balance sheet capital, and equity of investors, using information from a specific point in time (Brammerts W, et al., 2011: p.65).

Some of the key profitability ratios are

Net profit margin

Return on assets

Return on equity

Operating profit

Net profit margin is the division of net income of the company by its total revenue which assesses its ability to convert revenues into profits.

If the ratio is small, it means that the majority of the revenue of the business is consumed by its various costs.

Net profit margin=Net income/Revenues

Return on assets is the measurement of the profitable usage of the assets of a firm. If this ratio is high, this indicates that total assets of the company have been used productively (Lee and Lee, 2016). Therefore, this is one of the most observed phenomenon in business.

Return on Assets=Net income/total assets

Return on equity is the measurement of the profitability of the investment of equity holders of a business. This is calculated as a division of net income by total equity and if this indicator is high this translates into a higher productivity of equity investment.

Return on equity=Net income/total equity

Operating profit is yet another profitability indicator of a business. It is the assessment of the profitability of the operations of a business as opposed to total profitability.

Operating profit is calculated as the division of operating income by total revenue of the business and a higher figure for this indicator shows that operations of a business has been high (Joseph C., 2013: p.122).

Operating profit=Net income/total revenue

Liquidity

Liquidity is another factor affecting financial stability of a business and this has been proven in the many practical examples from the past in which liquidity crises led to a further full-blown crisis for firms.

If firms cannot pay their short-term debt, this might create a crisis for the business as creditors would enforce their covenants and there would be a demand by everyone to resources of the company due to a fear of further illiquidity and finally, insolvency (Lee, J. C. and Lee, C. F., 2016: p.234).

Liquidity explains how an asset can be traded for money. These possessions, kn own as liquid assets, can be quickly turned into cash. The word "cash asset" is most c ommonly associated with stock market transactions.

Liquid assets are those where investors willing to pay the market price are read y and waiting. Illiquid capital, on the other hand, are those where there are few buyer. The owner may have to wait with an illiquid asset to find someone willing to buy the property.

Liquidity is measured by various ratios such as quick ratio, current ratio and cash ratio and as these ratios have been defined in the next section, this sub-chapter does not comment on these indicators in a greater detail.

Solvency

Solvency is yet another important element for a business which defines its future stability. Solvency decisions are related to capital structure decisions.

Solvency is directly related to an individual or company's ability to pay debts, including any related interest.

The value of the assets of an entity, whether in relation to a company or an indi vidual, must be greater than the sum of itsdebt obligations to be considered solvent.

Businesses can choose from debt and equity sources for financing their operations and depending on the circumstances of a company, one or the other might

be more suitable (Lee, J. C. and Lee, C. F., 2016: p.235). However, usually, a mixture of both sources are used for the financing of operations of a business and this has been exemplified in practice as well.

Debt is preferred in many instances due to its protection against interest expenses. Nevertheless, this benefit of debt source of financing should not mean that companies can take on an excessive amount of debt as this might lead to future instability and insolvency for a business.

Equity funding has its own merits and disadvantages as well. Equity is expensive as several intermediaries participate in its raising and each of them charges additional expenses which make it costly for the business raise equity.

Furthermore, equity financing also results in the dilution of ownership for the previous equity holders of a business.

Finally, some private businesses do not want to lose their ownership control of a business and going public means that there will be increased level of scrutiny on a business which will be costly for the company again.

In other words, taking various merits and disadvantages of equity and debt financing into account, companies decide which source of funding to use and how to combine them.

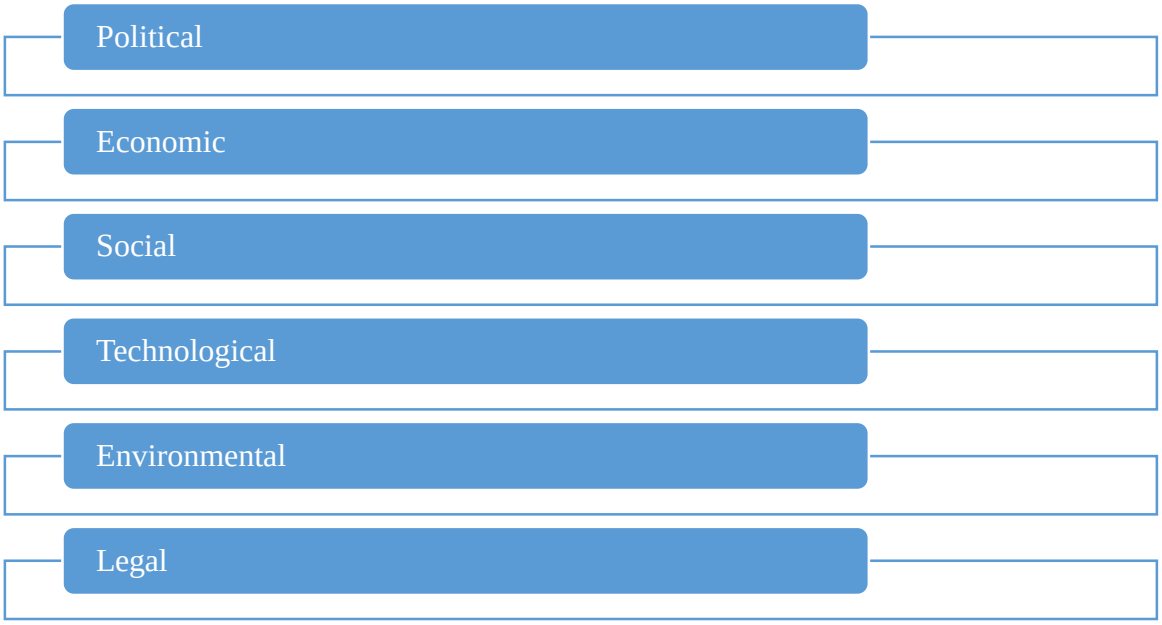
Solvency is the result of these decisions and too much of debt in the capital structure might be a burden on the financing costs of a business which in turn, would increase the chances of a future instability for a company.

Macroeconomic factors

Macroeconomic factors or factors that are outside the control of the firm also impact its stability both in the short and long-term due to several factors.

PESTEL analysis has been one of the major tools to assess the external environment of a business which is comprised of the following sub-components:

Chart 1. PESTEL for macroeconomic environment analysis



Source: Campbell P., 2017, 354 p.

PESTEL tool demonstrates that such factors as political, economic, social, technological, environmental and legal affect the business and these factors also impact financial stability of a firm.

Political

These are all about how a state intervenes in the economy and to what degree. This may include - government policy, overseas market political stability or instabilit y, foreign trade policy, tax policy, labor law, environmental law, trade restrictions, an d so on.

From the above list, it is clear that political factors often affect organizations an d how they do business. Organizations must be able to respond to current and anticipa ted future laws and adjust their marketing policies accordingly.

Economic

Economic factors have a major impact on how business is done by a company a nd how profitable it is.

Economic growth, interest rates, exchange rates, inflation, consumer and business dis posable income, and so on, are influences.

Social factors

The areas that involve the population's shared beliefs and attitudes are also kno wn as sociocultural factors. Such variables include: population growth, distribution of gender, knowledge of nutrition, job attitudes, etc.

The impact of these variables which are exogenous to our model for the valuation of financial stability, will be considered in various assumptions of the forecasting such as growth rate and discount rates.

Technological factors

We all know how quickly the technical world shifts and how this impacts how our goods are advertised. Technical influences have three distinct impacts on advertisi ng and its management

Environmental factors

These factors have only really come to the forefront in the last fifteen years or so. They have become important due to the increasing scarcity of raw materials, pollution targets, doing business as an ethical and sustainable company, carbon footprint targets set by governments.

Legal factors

Health and safety, equal opportunities, advertising standards, consumer rights a nd laws, drug labeling and product safety are legal considerations.

1.3. Forecasting financial stability of an organization

Financial stability of the company will be evaluated based on several methods for the evaluation of financial stability.

1. *Assessment of financial stability through the evaluation of capital structure*

One of the categories of assessing financial stability is the assessment of debt and equity and their proportions in the financing of company operations (Campbell P., 2017: p.25). In other words, capital structure of companies gives useful insights into the financial stability of them and therefore makes up a significant part of the analysis of financial stability. That is why, ratios based on capital structure will be used in this research to assess financial stability of Pasha Holding. Some of the key ratios based on capital structure are given below which to be included in the study:

Common equity to total assets =Measured as the division of common equity to total assets;

Debt to assets ratio=Measured as the division of total debt to total assets;

Proportion of current debt=Measured as short-term liabilities to total assets;

Financial stability index=Measured as (Common equity+Long-term liabilities)/total assets;

Long-term stability ratio (solvency) =Measured as Common Equity Divided by Total Liabilities.

2. *Assessment of financial stability through evaluation of liquidity*

Short-term debt of the company are serviced with current assets. Therefore, the assessment of financial stability of an organization should include the assessment of liquidity as well (Campbell P., 2017: p.26). Therefore, this research will assess the liquidity of Pasha Holding using the following liquidity indicators:

Current ratio=Measured as current assets divided by current liabilities;

Quick ratio=Measured as current assets excluding inventory divided by current liabilities;

Net working capital=Measured as current assets minus current liabilities which is considered as net liquidity of the firm.

3. *Assessment of financial stability through evaluation of leverage effect*

Leverage effect is considered as a potential source to improve the performance of an organization and by using it prudently, businesses can obtain long-term performance boost. To assess the effect of it on Pasha Holding, the following approach has been adopted from the existing academic literature.

Financial leverage degree is an important indicator with this regard and it assesses the change in profitability arising from the use of additional debt (Campbell P., 2017: p.27). Degree of financial leverage is calculated as the multiplication of the following indicators:

1. The difference between Return on Assets (ROA) and return on debt capital. This difference shows and additional return that can be obtained from borrowing and investing.

2. Debt to equity ratio which demonstrates the financial leverage of the company.

3. Tax coefficient which accounts for tax-deductibility of debt financing.

Hence, multiplication of these indicators show the level of financial leverage effect and this analysis will be applied to Pasha Holding as well.

4. *Forecasting methods*

In order to forecast the future of the state of the company and evaluate its financial stability in a particular point in time in the future, it is essential to use forecasting model.

- Free cash flow valuation models

There are several forecasting models and free cash flow valuation models are among them which is used most frequently. This method enables to build a model of the future state of the company in terms of cash flows and assess whether this future is financially stable or not by applying the techniques that were discussed above for forecasting financial stability (Coyle B., 2000: p.54).

Free cash flow of a business is a cash remains with the business after considering the cash outflows. The importance of this methodology is that it is based on cash available for business and does not include non-cash items. These items are accounted for by making the necessary adjustment to the cash flows.

In order to understand free cash flows, operating free cash flow should be reviewed. This cash flow is the cash that is ascribable to all providers of capital in the firm. EBIT of the firm is taken and tax expenses as well as non-cash expenses are adjusted for in order to arrive at operating free cash flows.

Formula 1. OFCF

Source: Coyle B, 2000

$$OFCF = EBIT \times (1 - T) + D - CAPEX - D \times wc - D \times a$$

where:

EBIT=earnings before interest and taxes

T=tax rate

D=depreciation

wc=working capital

a=other assets subject to depreciation

This formula can be understood as free cash flow to the firm as it includes cash for both debt and equity holders. Free cash flow to the firm valuation model is used when the overall business valuation perspective is taken whereas free cash flow to equity model for valuation is used when the equity value of the firm is more interesting to the researcher.

Therefore, upon identifying free cash flows to the firm, the valuation model is built on growth rate, relevant discount rate and time horizon. These models use a variety of assumptions such as about the growth rate of the firm, inflation, economic growth and so on and using these assumptions the future financial condition, performance and cash flows of the firm can be forecasted up to a desired horizon. However, it should be

mentioned that the longer the time horizon, the less the reliability of the forecast as it is difficult to build reliable forecasts much longer into the future.

- Residual income models of valuation

This model is also popular and when free cash flows cannot be forecasted reliably, then residual income is more countable as a base to forecast the future fundamentals of the company.

Residual income valuation/forecasting model assumes that the value of the company equals to the sum of the discounted future residuals incomes of the firm.

Residual income is defined as

Net Income-equity capital*cost of equity

This model tries to make up for the shortfall of usual income statement preparation methods. For example, net income is adjusted for cost of debt as interest expense is deducted in the calculation of net income. However, cost of equity is not accounted for in the calculation of net income (Coyle B., 2000: p.125). Therefore, residual income makes up for this shortcoming by subtracting cost of equity from net income as well. As a result, both cost of debt and cost of equity are taken into account in the calculation.

Thus, when residual incomes are ready they are input into the model to forecast the future financial condition, performance and cash flows of the company.

There are several merits and drawbacks of using residual income model for forecasting.

Merits of residual income model

These type of forecasting methods are more suitable for mature companies than those that have unpredictable cash flow patterns. Therefore, when businesses have unpredictable cash flows from period to period and using free cash flow valuation methods are not suitable, then it is recommended to use residual income models.

Furthermore, residual forecasting methods rely on a more realistic evaluation of the performance of a business due to the fact that they take into account both cost of debt and cost of equity. Considering only cost of debt is not enough for investors to

assess the performance of a business (Joseph C., 2013: p.24). Therefore, cost of equity charge must be taken into consideration as well. Therefore, residual income models are more realistic.

Drawbacks of residual income model

This model, nevertheless, relies on accounting data to a significant extent which makes it less reliable compared to those models that use free cash flows.

Some cases might be problematic as discussed below:

- If the company uses aggressive accounting policies, then it might be problematic to use its reported data for forecasting.

- If a clean surplus relationship is violated, then it is highly likely that the model will not be reliable.

Clean surplus relationship can be summarized as below:

Ending Book Value=Beginning Book Value+Net Income-Dividents

Some items are charged to shareholders' equity but not to income statement which results in the violation of clean surplus accounting. These items are as follows:

- Foreign currency translations and gains;
- Pension adjustments;
- Gains/losses on hedging instruments;
- Revaluation surplus for assets;
- Changes in the value of liabilities;
- Change in value of securities that are classified as available for sale.

Mathematical methods of forecasting

Four major types of forecasting methods are used by financial analysts to pre dict a business future revenues, expenses, and capital costs:

- straight line method;
- moving average;
- simple linear regression;

- multiple linear regression.

Each of these methods are explained below in a greater detail.

- Straight line method

This is the easiest way of calculating future sales. Historical growth rate is som etimes referred to as straightline forecasting and can give you a rough look at where s ales are based on past growth rate.

The first step in straightline forecasting is to determine rate of sales growth use d to measure future revenues.

Take the statistic of the previous year and calculate growth rate to estimate fut ure revenues.

Moving average method of forecasting

A moving average is a method for obtaining an overall understanding of pattern s ina data set; it is an average of some number subset. To forecast long-term trends, the moving average is extremely useful. For any period of time, you can calculate it.

For instance, with sales data, it is possible to calculate a moving average of five years, a moving average of four years, a moving average of three years, and so on and based on the question of the study one of these figures can be selected.

Linear regression

Simple linear regression is a statistical method that allows us to summarize and analyze relationships between two continuous (quantitative) variables.

Due to the fact that the other terms are used less often today, we will use the wo rds "predictor" and "answer" to refer to the variables used in this course. The other wo rds are only mentioned to make you aware of them if you find them.

Simple linear regression analysis is a statistical tool to quantify the relationship between a single independent ("simple") variable and a dependent variable based on p ast experience (observations).

Before using a simple linear regression analysis, it is important to follow these preliminary steps:

1. Look for an independent variable that is likely to cause or influence the shift in the dependent variable;

2. Make sure that the previous amounts for the independent variable are in the s ame duration as the dependent variable plot number;

3. Review the findings plotted for a linear trend and for any outliers;

4. Bear in mind that correlation will occur without cause and effect.

Multiple regression model

While a useful tool, linear regression has significant limitations.

As the name implies, it can not easily match any nonlinear data set. Only predic tions that match within the context of the training data set can be used.And, most imp ortantly for this article, only a single dependent variable and a single independent vari able can be fit to data sets.

Here b_0 is the intercept and b_1, b_2, b_3, …, b_k are analogous to the slope in linear regression equation and are also called regression coefficients. They can be interpreted the same way as slope.

The appropriateness of the multiple regression model as a whole can be tested by the F-test in the ANOVA table. A significant F indicates a linear relationship between Y and at least one of the X's.

Once a multiple regression equation has been constructed, one can check how good it is (in terms of predictive ability) by examining the coefficient of determination (R2). R2 always lies between 0 and 1.

Assumptions of multiple regression

Multiple regression technique does not test whether data are linear. On the contrary, it proceeds by assuming that the relationship between the Y and each of X_i's is linear. Hence as a rule, it is prudent to always look at the scatter plots of (Y, X_i), i=

1, 2,…,k. If any plot suggests non linearity, one may use a suitable transformation to attain linearity.

Another important assumption is non-existence of multicollinearity- the independent variables are not related among themselves. At a very basic level, this can be tested by computing the correlation coefficient between each pair of independent variables.

Other assumptions include those of homoscedasticity and normality.

Multiple regression analysis is used when one is interested in predicting a continuous dependent variable from a number of independent variables. If dependent variable is dichotomous, then logistic regression should be used.

Heteroscedasticity means scattering unequally. In regression analysis, in the sen se of the residuals or error word, we are talking about heteroscedasticity. Heterosceda sticity in particular is a systemic shift in residual distribution across spectrum of calcu lated values.

Thus, the number of forecasting techniques is numerous and they can be used to forecast financial stability of Azerbaijan companies as well.

CHAPTER II. EVALUATION AND FORECASTING FINANCIAL STABILITY

2.1. Introduction to the company and data. The case of Pasha Holding in Azerbaijan

Pasha Holding is a company specializing in insurance, banking, travel and tourism, construction and other businesses. Since November 1, 2006, the company builds its business on the basis of international business standards - effective management, corporate governance and sound investment decisions. The holding's investment portfolio is based on two types of investments: the holding owns a controlling interest in the companies it owns and a minority stake in other businesses.

PASHA Bank, a member of PASHA Group of Companies, was established in June 2007 and operates under license of the Central Bank of the Republic of Azerbaijan dated November 28, 2007, No. 250. Ernst & Young, the Bank's official auditor, is Deloitte & Touche's international audit firm for tax matters. PASHA Bank is a member of Deposit Insurance Fund, Azerbaijan Banks Association, Baku Interbank Currency Exchange (Certificate No. FX-96, June 27, 2008), American Chamber of Commerce in Azerbaijan, National Fund for Support of Entrepreneurship, Azerbaijan Mortgage Fund. Capital is currently 228 million manat. The total number of shareholders is 2 legal entities and 1 natural person. Shareholders of the bank are two legal entities: PASHA Holding Ltd. (60%), Ador Ltd. (30%) and one individual: Mr. Arif Pashayev (10%). (http://www.pasha-holding.az - 2018) PASHA Insurance was established on March 3, 2006 in accordance with the relevant legislation of the Republic of Azerbaijan. In the insurance services market, PASHA Insurance presents itself as a universal insurance company. The company offers 35 types of compulsory and voluntary insurance services for both individual and corporate clients. PASHA Insurance is one of the recognized leaders in the insurance services market of Azerbaijan. Currently, the authorized capital of the company is 50 million manat. This high level of capital allows PASHA Insurance

to provide its financial solvency with confidence and guarantees its solvency. In addition, a sufficient supply of the company with its own funds means that it has the potential for future development.

PASHA Insurance's business processes are based on the best Western practices, taking into account the characteristics of the national market. Our company is a member of such organizations as AMCHAM, Global Compact, IMIA and the Azerbaijan Insurers Association.

PASHA Yatırım Bankası A.Ş. does not have a consolidated partnership and the unconsolidated summary financial information pertaining to the 2018 operating results is provided in the table below.

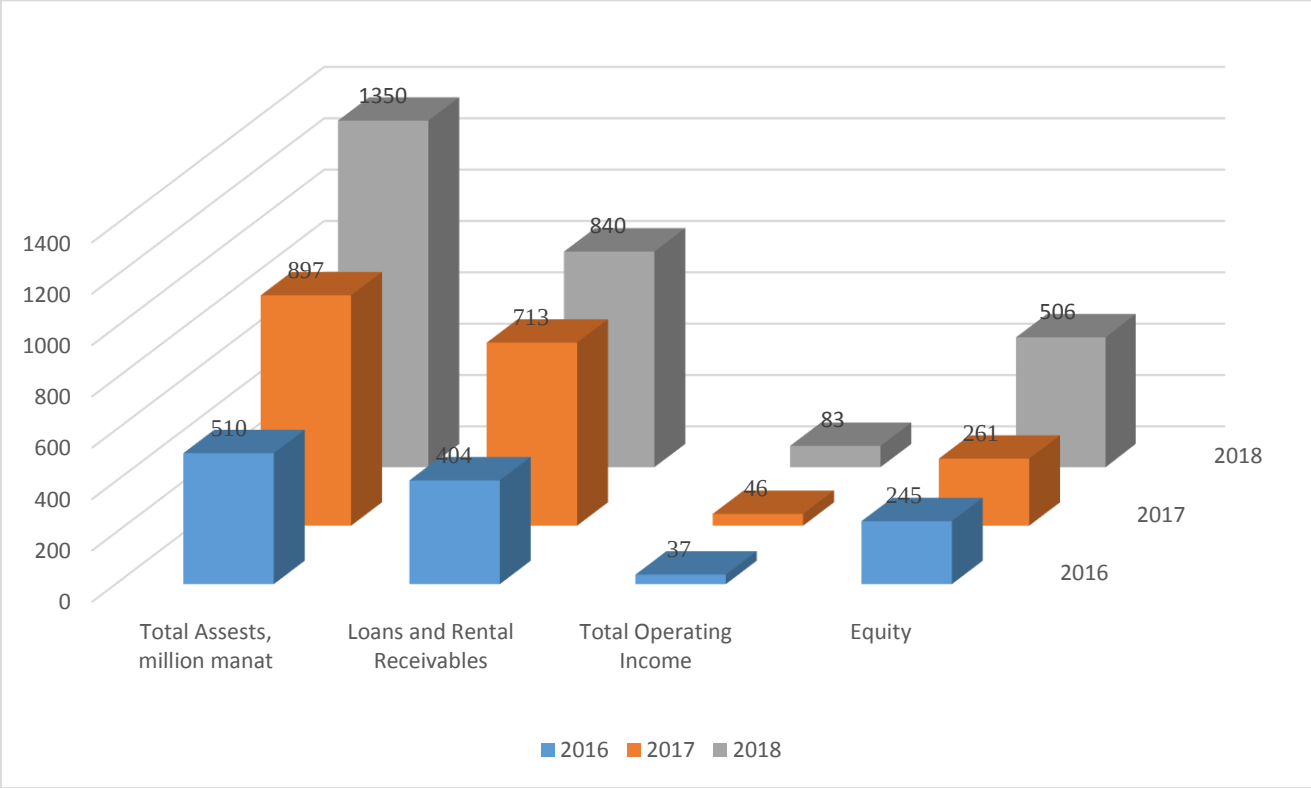
Table 1: Financial indicators

Thousand manat	**2018**	**2017**
Cash Values and Central Bank	85.111	77.573
Fair Value Difference K / Z Reflected (Trading Securities)	2.787	4.943
Fair Value Difference Reflected in Comprehensive Income (Securities Available for Sale)	8.405	21.308
Financial Assets Measured by Amortized Cost (T. to Maturity)	60.694	-
Receivables From Banks and Money Markets	92.636	73.616
Loan and Rental Receivables	840.278	713.048
Subsidiaries	-	-
Other Assets	259.654	6.357
Total Assets	1.349.565	896.845
Credits Obtained	460.390	341.387
Debts to Money Markets	-	62.729
Issued Securities	318.492	181.741
Other Liabilities	65.026	50.381
Paid-in capital	500.000	255.000
Profit Reserves	5.655	324
Securities Valuation Differences	(41)	(48)
Previous Years Profit / (Loss)	3.606	(10.677)
Net Profit / (Loss)	(3.563)	16.008
Total Liabilities	1.349.565	896.845

Source: https://www.pashabank.com.tr/ - 2019

PASHA Bank continued its steady growth in 2018 and increased its asset size by 50% compared to the previous year.

Grapic 1: General Information



Source: https://www.pashabank.com.tr/ - 2019

PASHA Investment Bank Inc. On 25 December 1987, Yatırım Bank A.Ş. the title is based in Istanbul, Turkey's first foreign-owned investment bank, has served the management of different groups of capital by 2015. After the acquisition of majority shares in 2015, Baku-based regional financial institution PASHA Bank OJSC, the new title of the Bank was PASHA Yatırım Bankası A.Ş., and its business name was PASHA Bank.

Table 2. Partnership Structure

Shareholder	Capital Amount (TL)	Number of Shares	Share Rate
PASHA Bank OJSC	254.795.121	254.795.121	% 50,96
PASHA Holding LLC	245.000.000	245.000.000	% 49,00
Other	204.879	204.879	% 0,04
Total	500.000.000	500.000.000	% 100,00

Source: https://www.pashabank.com.tr/ - 2019

PASHA Bank operates in its headquarters in Istanbul and has no branches. PASHA Bank, contributed to the development of trade between Turkey and the Azerbaijan and provide resources to businesses that invest in the region, to guide serves to entrepreneurs with investment banking and corporate banking products.

The backbone and foundation of the PASHA Bank philosophy is accuracy: accuracy in bank and customer management; accuracy in public perception; Accuracy in relations with legal institutions is essential for our bank. PASHA Bank has adopted high product and service quality as a principle against its stakeholders. It is the visible and concrete element of our bank's philosophy. It is suitable and measurable for PASHA Bank in every respect. Service and product quality is the quality of the work done, the relationship with people both horizontally and vertically.

Paşa Bank, the second largest financial institution of Azerbaijan, is purchasing the TAIB Bank, which Aksoy Holding bought 2 years ago. In case of approval by the Competition Board, the control of TAIB will be passed to Pasha Bank. Aksoy had bought TAIB 2 years ago from Sheikh Sheikh El Maktum.

Disclosure about the subject was made by the Competition Board. “The transaction subject to the notification is related to the acquisition of the majority share of Taib Yatırım Bank Anonim Şirketi from Aksoy Holding AŞ, which has full control of the company by Pasha Bank OJSC”.

Aksoy Holding, which also includes Turcas Petrol, purchased the TAIB Bank based in Bahrain from Dubai Sheikh El Maktum in June 2012. Hürriyet raised what Aksoy wanted to sell TAIB in September last year. Aksoy Holding Chairman Erdal Aksoy made a statement to Hürriyet, saying, “We plan to give the majority share to our Azeri partner in a possible partnership. The negotiations are now in this direction. They want to perform banking activities in Turkey, "he said. Paşa Bank, the second largest financial institution of Azerbaijan, applied to BRSA last March to purchase TAIB Bank. Pasha Bank Taleh Kazimov Member of the Board, said in a statement that period, "Turkish banks are willing to take. We also refer to the Turkish regulator. Our operation in the country will continue as Pasha Bank Turkey," he said. The bank under Paşa Holding operates in Georgia as well as Azerbaijan.

In order to control risks in the process of ensuring the most efficient allocation of credit resources in its activities, PASHA Bank OJSC adheres to a specially developed Credit Policy. The provision and support of loans in the Bank is carried out according to uniform standards established by internal banking regulations. The Bank carefully selects loan projects, depending on the purpose of the loan, the availability of real sources of loan repayment, the dynamics of the borrower's financial situation, his credit history, the state of the economy sector and the region, as well as the availability of sufficient security and the level of payment for the loan. The main objective of the Bank’s credit policy is the rational and efficient allocation of funds, which allows to obtain maximum income with minimal risk, while maintaining the necessary level of Bank liquidity.

The Bank's credit policy defines the goals and priorities of lending activities, the means and methods of their implementation, contains principles, procedures for organizing and monitoring credit operations.

The determining factor in the Bank’s credit policy is its focus on satisfying customer needs for borrowed funds with the widest choice of forms and methods of

providing loan products while reducing the risk of default on the principal amount and interest on it.

The Bank's special attention is focused on determining the following risk control priorities:

- Quality assets
- Profitable relationship
- Reasonable loan portfolio growth.

To achieve the goal of the best allocation of resources, the Bank follows the following criteria:

- Requirements of the Central Bank of the Republic of Azerbaijan
- Mission and Corporate Strategy of the Bank (including maintaining high ethical standards for the Bank's Credit Culture
- Security considerations and reasonable care, which means engaging only in legitimate and risk-sensitive transactions.

To achieve these goals, the Bank sets medium and long-term strategic requirements for the loan portfolio. These requirements are consistent with the strategic focus and the risk level acceptable for the Bank. In determining these strategic requirements, a thorough analysis is carried out, and then their level of profitability and risk are taken into account. Strategic requirements are periodically reviewed and, as necessary, amended and supplemented.

The duty of each Bank employee involved in the lending process is to ensure activities within the framework of the Credit Policy. All loan applications are considered only in this order: quality, profitability, portfolio growth.

In order to minimize the credit risks accepted by the Bank, taking into account the requirements of the Central Bank of the Azerbaijan Republic, as well as internationally recognized principles and standards of credit risk management of banking activities and the recommendations of the Basel Committee on Banking

Supervision, the Bank manages credit risks in accordance with the following basic principles:

- Powers in the field of credit activities
- Diversification of the loan portfolio
- Monitoring loan portfolio
- Creating reserves to cover potential losses.

The Bank also developed an internal rating system as a standard means of evaluating borrowers. Information on customer ratings is used by the Bank at various managerial levels to better understand the quality of assets and segmentation of the Bank's loan portfolio.

In the course of its activities, the Bank regularly evaluates assets in order to determine possible losses. In case of revealing objective evidence of impairment of assets, the Bank creates appropriate reserves for impairment in accordance with the requirements of international standards, the rules of the Central Bank of the Azerbaijan Republic and internal standards of credit activity.

In the event that negative trends in the structure of the loan operations portfolio are identified, the Bank takes operational measures to correct lending activities within the framework of the existing basic principles of credit and risk management policies.

In determining the fair value of loans granted, the Bank proceeds from the need to fully cover the costs of attracting the appropriate resources, as well as include a premium and appropriate commissions to compensate for the Bank's expenses for studying, processing, maintaining a loan, and obtain acceptable profitability, taking into account the risk potential of the credit operation.

The Bank manages the risk of portfolio concentration by limiting credit operations by region, type of loan, as well as by individual borrowers.

The Bank actively uses such methods of ensuring the fulfillment of obligations by borrowers as a pledge of property, guarantees and sureties of third parties. As a significant factor in minimizing credit risks, the Bank considers insurance of property

interests of borrowers against losses resulting from natural disasters, damage and theft of fixed and circulating assets that are subject to credit or collateral (with approval of the list of collateral subject to compulsory insurance). The most reliable insurance organizations with a stable financial position are involved in the provision of insurance services for this property.

Credit risk in terms of interbank operations and operations with securities is regulated by setting individual limits for each borrower (counterparty, issuer, drawer). The basis for setting limits is an assessment of the financial condition and dynamics of a borrower's business development, its credit history, and assessment of other non-financial information. In order to exclude losses during operations in the interbank and stock markets, the credit risk levels of counterparty banks / issuers of securities are monitored, and the list of counterparty banks / issuers with which operations are carried out is operatively reviewed. Banks and issuers with high credit ratings are selected for the role of counterparties.

Control over the credit policy of the Bank and specific banking operations related to the allocation of resources is carried out as part of the general internal control system in place at the Bank. At the same time, along with the Supervisory Board and the Management Board of the Bank, the main controlling bodies include internal divisions (Credit Committee, Risk Management Committee, Financial Management Department, Risk Management Department, Internal Audit Department, Credit Control Department).

To reflect the level of credit risk and its focus, requirements for issuing, managing and controlling loans, as well as the quality of the loan portfolio and off-balance sheet liabilities, the Bank creates an adequate Management Information System (IMS). IMS provides information on the content and structure of the loan portfolio and monitors compliance with the established limits, thereby reducing the concentration of risks. IMS also informs authorized employees and managers of the Bank participating in the lending process of approaching credit risk indicators to the established limits.

IMS timely and periodically informs the Management Board about the inconsistency of the current quality criteria with the planned ones.

In addition to the financial condition, the bank's development strategy and the quality of the methodology chosen by the borrowing customers influence the reliability and investment attractiveness of the bank. The bank's methodology for assessing the creditworthiness and reliability of the borrower is usually a commercial secret. However, you can try to assess its quality by examining the financial statements of the bank (balance sheet and income statement), the mandatory economic standards of the Central Bank and the additional information that the bank deemed necessary to cover in the published annual report.

2.2. Evaluation of financial stability of the company

Liquidity is the ability of an enterprise to fulfill its short-term obligations using current assets or the ability to pay off debt with the funds available at the enterprise. According to the information from the financial statements, it seems possible to calculate how much the company can cover its obligations for the next period of time with its own funds (absolute liquidity ratio), and the ability to guarantee the fulfillment of short-term obligations with current assets (coverage ratio). The solvency of the enterprise is a significant aspect in the financial position of the enterprise for investors. Under the solvency of the balance means the ability of the company to pay with available cash and cash equivalents at the end of the reporting year for obligations arising at the end of the same year.

Financial stability is the ability of the enterprise in the future to guarantee the necessary funds for itself in order to implement the production plan. During the analysis of the financial stability of the enterprise, the dependence of the enterprise on borrowed funds is considered. The financial position of the company is stable, if all the characteristics are normal. Critical situations can be considered when indicators and characteristics are below the norm, and borrowed sources of financing dominate in the

functioning capital. An unstable financial situation can be considered if the equity of the enterprise is equal to borrowed capital or insignificantly more than borrowed capital.

When considering characteristics, the dynamics of improvement or deterioration over several years should be taken into account. This will make it possible to most fully assess the stability of the enterprise. In order to invest, it is necessary to conduct a study of the competitive environment of the enterprise and the characteristics of competing enterprises. Economic characteristics for the investor are considered to be the main ones, but for the purpose of a complete analysis and mitigation of risks, a comprehensive analysis of the investment attractiveness of the enterprise is no less important. The financial condition of the company is one of the most important factors for making a decision on investing. This factor is based on the analysis of enterprise documentation, financial results and conclusions from the analysis.

PASHA Bank increased its capital from 255 million TL to 245 million TL by increasing 245 million TL in cash. PASHA Holding LLC, which owns a 59.95% indirect share in our bank, has a 49% share in our bank. share increased to 79.57%.

PASHA Bank OJSC is one of the leading corporate banks in Azerbaijan. It was established in 2007 and provides corporate banking services, including loans, securities, current account and treasury services to both local customers and foreign companies wishing to do business in the region. It primarily supports non-oil sectors that are important for the Azerbaijani economy, such as agriculture, transportation, construction and retail. In addition, it is the first bank in the local securities market to act as a market maker and provides brokerage services to its customers. PASHA Bank OJSC offers its customers a wide range of financial products related to foreign trade financing in cooperation with international banks and financial institutions.

PASHA Bank OJSC also provides private banking services to High Net Asset Individuals since 2011, including deposits, credit and financial planning. PASHA Bank OJSC serves approximately 760 people from eight different nationalities at its

headquarters and six branches in Baku. The Bank acts with the vision of creating interconnected banking activities to facilitate the ever-growing trade and investment flow between Baku, Tbilisi and Istanbul, the region's most active markets. (Appendix 2)

The Bank opened its first subsidiary, PASHA Bank Georgia, in 2013. PASHA Bank OJSC is the "Best Corporate Social Responsibility (CSR) Program of Azerbaijan", the Best Investment Bank of Azerbaijan in 2011, 2012 and 2013 by EMEA Finance, an international financial magazine, and the European Banking Awards in 2013. ”Award. In addition, the World Finance magazine awarded PASHA Bank Private Banking Unit the "Best Private Sector Bank of Azerbaijan" in 2013. PASHA Bank became the “Best Bank of Azerbaijan” in 2012 in the BNE survey and was awarded the “Best Bank of Azerbaijan” by the EMEA Finance Europe Banking Awards in 2014-2015, and trade finance of Azerbaijan by Commerzbank AG in 2014 “Trade Award” was given for being the most active bank in its branch. In 2016, Global Finance was selected as the best bank and the best banking group of Azerbaijan and was declared as the "Best Commercial Bank" by World Finance in 2016. (Appendix 1)

To assess the financial stability of the CB, on the basis of the data presented in Table 3, the so-called financial ratios (FC) are calculated, which act as evaluation criteria. Moreover, the choice of these FCs is determined by a significant impact on financial stability, their compatibility, mutual comparability in terms of dimension and focus. The most universal list of used FC stability is proposed, which was used by us in the form of a table 4, where, along with the corresponding calculation formulas, their normative values are also given.

The calculated values of PK as quality criteria for the considered KB ak (k 1 4) are summarized in table. 5. The normative values of these criteria are also given there.

Table 5: The Design and regulatory values of the criteria for the stability of banks

Quality criterion	Criterion value for a commercial bank				Normative value
	*a*1	*a*2	*a*3	*a*4	
*F*1	25,94035	23,4257	60,39857	32,13752	10
*F*2	19,05326	11,80804	58,04158	21,13348	6
*F*3	100	100	100	100	80
*F*4	86,29145	77,78037	65,64433	74,68631	70
*F*5	1,258098	2,690529	6,911546	13,84008	15
*F*6	103,8528	99,11869	94,82304	99,11257	85
*F*7	131,0548	115,376	181,1738	119,2512	60÷70
*F*8	91,64432	97,17776	96,7312	98,38595	96÷99
*F*9	5,42011	1,570383	0,919945	5,787078	4
*F*10	6,222299	1,175498	23,37337	27,77507	35
*F*11	11,31626	8,636069	13,54752	9,020158	3
*F*12	81,99702	39,06492	42,20224	36,05145	15
*F*13	12,66742	41,6313	84,54073	62,8234	50
*F*14	13,80082	22,10697	32,10143	25,02024	50
*F*15	1,81384	3,469035	0,462558	2,250699	1,5

Source: http://www.immsp.kiev.ua/ - 2019

An analysis of the calculated FC values indicates that all four design bureaus do not fully comply with the normative values - criteria for assessing financial stability. Nevertheless, even in the presence of such initial conditions, we apply two fuzzy methods of multicriteria assessment, which we considered in our works.

So, assuming FC Fi (i 1 20) to be the criteria for assessing the financial stability of the design bureaus, and their qualitative characteristics in terms of the terms of the corresponding linguistic variables, we apply the fuzzy model proposed in [2] to assess the financial stability of the above alternative design bureau ak (k 1 4) in the form of the following set of rules:

e1: "If F20 = NOT LOWER THAN 4.75 and F19 = WITHIN LIMITS and F18 = MORE THAN 85 and F17 = MORE THAN 5 and F16 = MORE THAN 8 and F15 = MORE THAN 1.5 and F14 = MORE THAN 50 and F13 = WITHIN THE REGULATIONS and F12 = WITHIN THE REGULATIONS and F11 = WITHIN THE REGULATIONS, then Y = ACCEPTABLE ";

e2: "If F20 = NOT LOWER THAN 4.75 and F19 = WITHIN LIMITS and F18 = MORE THAN 85 and F17 = MORE THAN 5 and F16 = MORE THAN 8 and F15 = MORE THAN 1.5 and F14 = MORE THAN 50 and F13 = WITHIN THE REGULATIONS and F12 = WITHIN THE REGULATIONS and F11 = WITHIN THE REGULATIONS and F1 = WITHIN THE REGULATIONS and F2 = WITHIN THE REGULATIONS, then Y = MORE ACCEPTED ";

e3: "If F20 = NOT BELOW 4.75 and F19 = WITHIN LIMITS and F18 = NOT MORE THAN 85 and F17 = NOT LESS THAN 5 and F16 = NOT LESS THAN 8 and F15 = NOT LESS THAN 1,5 and F14 = NOT MORE THAN 50 and F13 = WITHIN LIMITS and F12 = WITHIN LIMITS and F11 = WITHIN LIMITS and F1 = WITHIN LIMITS and F2 = WITHIN LIMITS and F3 = WITHIN LIMITS and F4 = WITHIN LIMITS and F5 = NO MORE THAN 15 and F6 = WITHIN NORMS and F7 = WITHIN THE NORM and F8 = WITHIN THE NORM and F9 = MORE THAN 4 and F10 = MORE THAN 35, then Y = Faultless ";

e4: "If F20 = NOT LOWER THAN 4.75 and F19 = WITHIN LIMITS and F18 = MORE THAN 85 and F17 = MORE THAN 5 and F16 = MORE THAN 8 and F15 = MORE THAN 1.5 and F14 = MORE THAN 50 and F13 = WITHIN THE RATE and F12 = WITHIN THE RATE and F11 = WITHIN THE RATE and F3 = WITHIN THE RATE and F4 = WITHIN THE RATE and F5 = MORE THAN 15 and F6 = WITH THE RATE OF THE RATE and F7 = WITHIN THE RATE and F8 = WITHIN THE STANDARDS and F9 = MORE THAN 4 and F10 = MORE THAN 35, then Y = VERY ACCEPTABLE ";

e5: "If F20 = NOT LOWER THAN 4.75 and F19 = WITHIN LIMITS and F18 = MORE THAN 85 and F17 = MORE THAN 5 and F16 = MORE THAN 8 and F15 = MORE THAN 1.5 and F14 = MORE THAN 50 and F13 = WITHIN THE RATE and F12 = WITHIN THE RATE and F11 = WITHIN THE RATE and F1 = WITHIN THE RATE and F2 = WITHIN THE RATE and F3 = NOT WITH THE RATE and F4 = NOT WITH THE RATE and F5 = MORE THAN 15 and F6 = NOT IN THE LIMITS OF THE

REGULATION and F7 = NOT IN THE LIMITS OF THE REGULATION and F8 = NOT IN THE LIMITS OF THE REGULATION and F9 = MORE THAN 4 and F10 = MORE THAN 35, then Y = ACCEPTABLE ";

e6: "If F20 = BELOW 4.75 and F19 = NOT IN THE LIMIT OF THE RATE and F14 = MORE THAN 50 and F13 = NOT IN THE LIMIT

CASES OF THE NORM; and F12 = NOT IN THE LIMITS OF THE NORM; and F11 = NOT IN THE LIMITS OF THE NORM; then

Y = UNACCEPTABLE. "

Based on the results of applying two fuzzy methods of multicriteria alternative assessment, the total financial stability indices of the four leading commercial banks of Azerbaijan were obtained on the basis of relevant data on their financial indicators from available information sources. Nevertheless, the results obtained by applying these ranking methods for banks are somewhat different from each other. This can be explained by the fact that the CB data do not significantly differ in their initial financial indicators and, in essence, occupy leading positions in the financial market of Azerbaijan. So, we are inclined to consider ranking based on the fuzzy inference method more reliable, since the inference mechanism used here is more "sensitive" to minor discrepancies in the initial financial data (Coyle B, 2000: p.12).

2.3. Forecasting financial stability of the company

The work of commercial banks is a complex of processes that are interconnected. They depend, among other things, on a large number of different factors. These factors often with varying degrees affect the life of a commercial financial institution. There are factors that positively affect the work of the institution, and there are factors with a negative impact. All this forces them to urgently change their strategy, as well as tactics in the financial market.

Macroeconomic processes affect all areas of financial, industrial relations. It is noteworthy that negative trends in macroeconomics are the main causes of the crisis in

the financial sector or in its individual components. So, macroeconomic processes that affect the banking system are considered to be those that can affect the parameters, work and image of credit institutions.

Today, the classification of macroeconomic factors that affect the financial position of a credit institution is divided into six groups: (Dlabay, Burrow, 2007, pp.35)

- factors that are regulated by the Bank of the Azerbaijan Republic, regulatory, legal acts;

- the key rate is the interest at which the Central Bank of the Azerbaijan Republic gives loans to commercial banks for 1 week, and also accepts funds on deposits. From the moment this monetary policy tool was introduced, the refinancing rate temporarily began to fade into the background (currently used as background information);

- course manat;

- regulations and restrictions of the Central Bank of the Azerbaijan Republic.

The subgroup provides for regulation by the Bank of the Azerbaijan Republic: part of required reserves, minimum authorized capital, required ratios, quantitative (direct) restrictions, regulation of cash and issue transactions. The size of the reserve requirements of the Central Bank is a mechanism of direct impact on the level of liquidity, regulation of credit emissions. As for the minimum reserves, they are called upon to fulfill the following functions: they provide the commercial bank's deposit obligations; act as a tool that the Central Bank applies to regulate the money supply in the country, creditworthiness and solvency of commercial banks. Using the reserve requirements mechanism, the Bank of Azerbaijan can: manage the volume of active operations, deposit issues of commercial banks; influence the structure, cost and size of attracted funds of banking system entities; regulate the pace, as well as the extent of change in the money supply; to monitor the level of credit risks, the liquidity of the system of credit companies;

- tax rates;

- tools of monetary and foreign exchange policy, which include operations of the Central Bank of the Azerbaijan Republic on the open market, investments in foreign currency, interest rate policy. As for the deposit operations of the Bank of the Azerbaijan Republic, they are used to support the liquidity of the banking system; are determined every day on standard conditions, taking into account market conditions. Under Articles 4 and 45 of the Federal Law "On the Central Bank of the Azerbaijan Republic", the Bank carries out operations to attract deposits of credit companies to regulate the liquidity of the banking system. Such attraction is carried out at fixed interest rates, as well as at rates that are determined on the basis of the auction. The Central Bank conducts deposit operations to influence the financial proposal by attracting free financial resources to deposits of commercial banks. Such a monetary policy tool makes it possible to influence the short-term and medium-term liquidity of credit companies. For commercial banks, placing funds in Central Bank deposits is an unprofitable offer. The reason for this is low interest rates. However, given the liquidity surplus, this enables banks to maintain profitability and financial stability of the business. The Central Bank can use relatively cheap financial resources that it attracts to stimulate the processes of investment and reproduction of the country's economy. But most importantly, funds can be invested in more profitable projects.

In evaluating contractual cash flows, which include only principal and principal interest payments, the Bank takes into account the contractual conditions of the financial asset. This assessment includes evaluating whether the financial asset includes a contract condition that can change the timing or amount of contractual cash flows. When making the assessment, the Bank also takes into account situations that may change the amount and timing of cash flows, conditions that limit access to cash flow, prepayment and extension terms, and features that must be taken into account when measuring the time value of money. These evaluations are also briefly defined as contractual cash characteristics testing. The Bank meets the in-balance sheet classification and measurement criteria by applying the procedures described above for

all financial assets. For the first time, each financial asset is classified as a financial asset measured at fair value through reflected fair value through profit or loss, or at fair value through other comprehensive income. For the classification and measurement of financial liabilities, the implementation of the provisions in TAS 39 does not change to a large extent. There was no change in the measurement of financial assets in the opening balance sheet of 1 January 2018 within the framework of the business model and contractual cash flow characteristics of the Bank during the transition to TFRS 9 implementation. Since the financial assets previously classified as available-for-sale have been "retired" under TAS 39, they have been classified as Fair Value Differences Reflected in Other Comprehensive Income as of January 1, 2018 under TFRS 9 without any change in measurement principles. Information on the classification and measurement of financial assets is summarized in the table below:

Table 6: Consolidated Non-Financial Statements

Financial Assets	Item classified as different as of December 31, 2017	TFRS 9	Book Value 2017	Book Value 2018
Cash Values, Receivables from Central Bank, Banks and Money Markets		Amortized cost	151,189	151,189
Bonds	Financial assets for trading purposes	Fair value difference reflected in K / Z	4,943	4,943
	Financial assets ready for sale	Fair value difference reflected on comprehensive income	21,308	21,308
Loans and receivables from leasing transactions, gross	Loans, gross	reduced cost	713,048	713,048

Source: www.pashabank.com.tr

As of 31 December 2017, the Bank does not have any non-performing loans and impairment provision. Regarding financial assets, it has made general provisions within

the scope of the "Regulation on the Determination of the Qualifications of the Loans and Other Receivables by Banks and Provisions and Provisions to be Set Aside" in the Official Gazette dated 1 November 2006 and numbered 26333. The mentioned general provision is shown under passive accounts in the balance sheet dated 31 December 2017. As of January 1, 2018, the Bank calculated the new expected loss provision measured in accordance with the TFRS 9 projected loss model and made changes in the equity items regarding this calculation. The table below shows the reconciliation of the new expected loss provision measured in accordance with the loss model envisaged as of 1 January 2018 with the general provision calculated as of 31 December 2017.

Table 7: Reconciliation of opening balance in transition to impairment provisions in TFRS 9

	before TFRS 9	**TFRS 9 classification**	**TFRS 9 sonrası**	**Total Difference**
	General Provision Amount December 31, 2017		January 1, 2018 Anticipated Loss Provisions	
Loans and receivables from leasing transactions	6,712	Level 1	3,258	
		Level 2 and 3	-	
Cash values, Receivables from Central Bank, Banks and Money Markets	47	Level 1	27	
		Level 2 and 3	-	
Bonds	133	Level 1	180	
		Level 2 and 3	-	
Non-cash loans and commitments	501	Level 1	1390	
		Level 2 and 3	-	
Total	7.393		4,855	2,538

Source: www.pashabank.com.tr

Financial stability in modern realities is considered one of the key components of the financial condition of the bank. Determining the level of stability and reliability of a commercial bank requires an objective assessment of its financial situation. Currently, there is no single methodology for assessing the stability of a credit

institution. Commercial banks on tradition calculate the values of economic standards that are mandatory for them to fulfill in accordance with Bank of Azerbaijan Instruction No. 180-I "On Mandatory Banking Ratios". In the Azerbaijan Republic, three types of methods for assessing financial stability are extensively used: the methodology of the Bank of Azerbaijan, methods of rating agencies and authoring. (Gibson, 2008, pp.44)

As a result of research on the topic of this work, many problems were identified. First of all, the problem of the lack of a more accurate full definition of the essence of the financial stability of a commercial bank, its differences from stability, as well as the theoretical basis of the content of financial stability as a whole, was considered. An important role is played by the improvement of the methodological framework for assessing the financial stability of commercial banks. Despite its significance, the issues associated with the study of the problems of assessing and monitoring the financial stability of a credit institution in the scientific literature are not fully developed. Also, the process of analyzing and evaluating the management of the financial stability of a credit institution is becoming more complicated, since today issues of its information support are not sufficiently developed. If we consider the overall financial statements, then it is built in accordance with the objectives of the analysis, which is carried out by the Bank of Azerbaijan. Therefore, from the point of view of internal control, financial statements are overly aggregated. The limited information base worsens the reliability of the conclusions, and the information obtained in the future cannot be used to make managerial decisions.

According to Article 15, Paragraph 2 of Article 7 of the TFRS 9 Financial Instruments Standard published in the Official Gazette No. 29953 dated 19 January 2017, it is stated that it is not obligatory to rearrange the previous period information within the scope of TFRS 9, It is stated that the difference between the book value of 1 January 2018 on the date of implementation should be reflected in the opening balance of the equities. Explanations regarding the transition effects to TFRS 9 shown in equity items within the scope of this article are given below. As of January 1, 2018, the TL

2.538 income difference is classified under the “profit or loss of previous years” in the equity between the Bank's closing impairment loss in the previous period and the new expected loss provision measured in accordance with the TFRS 9 projected loss model as of January 1, 2018.

The analysis methodology used in compiling the ratings is diverse for all rating agencies, although the financial statements are uniform. This is due to the fact that none of the methods today is reliable, since they take into account either quantitative or qualitative indicators. In some cases, the ratings of the same commercial bank show completely contradictory indicators. Consequently, both the banks themselves and their customers find it difficult to assess the real state and stability of the commercial bank. Therefore, the question of checking the financial stability of the bank is relevant and open, it is necessary to conduct a search for more objective methods that are applicable to all banks and meet the required parameters. The application should have, most importantly, effectiveness, that is, have an unambiguous conclusion about the state of a particular bank. As a result of the analysis and assessment of financial stability of Pasha Bank PJSC for the period 2015-2017. Three key points can be found (Joseph C, 2013: p.43):

- unstable state due to fluctuations in the financial performance of the bank during 2015-2017, which is mainly determined by the increase in expenses, decrease in income, as well as a decrease in the security of borrowed funds;
- in 2016 there was a drop in all analyzed indicators that characterize the financial stability of Pasha BankPJSC, a loss was recorded;
- In 2017, the decrease in both active and passive operations continues.

Credit operations are one of the main sources of interest income of a credit institution. During the analyzed period, the volume of corporate lending significantly decreased - the amount of loans granted to legal entities. The decrease was mainly due to the revaluation of loans in foreign currency. Loans to individuals declined only in 2017. The main sources of asset funding are customer accounts (93% of all liabilities)

and interbank loans (5.6% of all liabilities). The amount of organizations' funds decreased in 2017 by 42% against growth by 54% a year earlier. The main factor of decrease is the currency revaluation of funds, caused by a significant strengthening of the ruble.

Due to the decrease in the key indicator of the monetary policy of the Central Bank of the Azerbaijan Republic, the weighted average interest rates on loans issued to the population in rubles decreased. The reduction range, compared with the rates in 2015, was from 2.4 percentage points up to 3.7 pp Weighted average ruble rates on loans to corporate borrowers also decreased depending on the terms in the range of 1.9 percentage points. up to 3.2 pp The amounts of funds from the Bank of Azerbaijan in 2016 and 2017 were not attracted. An increase in interbank liabilities was observed only in 2016. The total profit of Pasha Bank at the end of 2016 was halved and had a negative value. Return on assets and equity also increased. The main factor in increasing the bank's profit in 2017 was the decrease in expenses for the creation of reserves for possible losses on loans.

The next problem is the deterioration in bank liquidity. Maintaining liquidity at the required level is carried out by means of a certain bank policy in the field of passive and active operations. That is, the bank must develop a competent policy for managing active and passive operations. The problem of reducing net interest margin is characterized by an increase in the cost of borrowed funds and a decrease in the spread, due to the excess of the growth rate of interest expenses over interest income of the bank. Indeed, analyzing the report on financial results, it is clear that the growth rate of interest expenses exceeds the growth rate of interest income. A high percentage on deposits indicates, first of all, that a commercial bank has an unstable resource base, insufficient for effective investments (Lawrence K.D., 2010: p.85).

This phenomenon also adversely affects liquidity. Among the priority steps aimed at solving this problem is the revision of interest rate policy. Using a flexible product and interest rate policy will enable the bank to avoid a serious narrowing of

spreads on active-passive operations. Credit operations are one of the first sources of interest income of the Bank. An increase in the share of high-yield loans to people in the loan portfolio will make it possible to compensate for the decrease in the return on productive assets. Thus, the financial stability of the commercial bank PJSC PASHA BANKis one of its main components. Depending on the degree of stability of commercial banks, the stability of the banking system of the state is formed and, therefore, its economic status. Thus, improving the mechanism for ensuring financial stability of PASHA BANK, developing measures to increase it is a paramount task.

CHAPTER III. POLCIY RECOMMENDATIONS TO IMRPOVE FINANCIAL STABILITY

3.1. Review of the current issues regarding financial stability of the company

The main goal of financial analysis is to obtain a small number of key (most informative) parameters that give an objective and accurate picture of the financial condition of the enterprise, its profits and losses, changes in the structure of assets and liabilities, in settlements with debtors and creditors. In this case, the analyst and manager (manager) may be interested in both the current financial condition of the enterprise and its projection in the near or more distant future, that is, the expected parameters of the financial condition.

The objectives of the analysis are achieved as a result of solving a certain interconnected set of analytical tasks. The analytical task is a specification of the objectives of the analysis, taking into account the organizational, informational, technical and methodological capabilities of the analysis. The main factor, ultimately, is the volume and quality of the source information. It should be borne in mind that the periodic accounting or financial statements of an enterprise are just "raw information" prepared in the course of performing accounting procedures at the enterprise (Lumby, S. and Jones, C., 2003: p.99).

In order to make management decisions in the areas of production, marketing, finance, investment and innovation, management needs constant business awareness on relevant issues, which is the result of the selection, analysis, evaluation and concentration of the initial raw information. An analytical reading of the source data is necessary based on the goals of analysis and management.

The basic principle of analytical reading of financial statements is the deductive method, i.e. from general to particular, But it must be applied repeatedly. In the course of such an analysis, the historical and logical sequence of economic facts and events,

the orientation and strength of their influence on the results of activities are, as it were, reproduced.

Financial stability is a reflection of the stable excess of income over expenses, provides free maneuvering of the enterprise's money and, through their effective use, contributes to the uninterrupted process of production and sale of products. Therefore, financial stability is formed in the process of all industrial and economic activities and is the main component of the overall stability of the enterprise.

Analysis of the stability of the financial condition of the enterprise on a different date allows you to answer the question: how correctly the company managed financial resources during the period preceding this date. It is important that the state of financial resources meets the requirements of the market and meets the needs of the enterprise development, since insufficient financial stability can lead to the insolvency of the enterprise and its lack of funds for the development of production, and excess - to impede development, burdening the enterprise costs with excessive reserves and reserves. Thus, the essence of financial stability is determined by the effective formation, distribution and use of financial resources. Its external manifestation is the solvency of the enterprise.

Solvency is the ability to timely fully fulfill its payment obligations arising from trade, credit and other payment transactions (Matz, L. and Neu, P., 2006: p.69).

Absolute indicators of financial stability are indicators characterizing the degree of provision of stocks and costs with sources of their formation.

To assess the status of stocks and costs, use the data of the group of articles "Reserves" of section II of the asset balance.

To characterize the sources of formation of reserves, three main indicators are determined:

Availability of working capital (SOS) as the difference between capital and reserves (I section of the liability side of the balance sheet) and non-current assets (I section of the asset balance). This indicator characterizes net working capital. Its

increase compared with the previous period indicates the further development of the enterprise. In a formalized form, the availability of working capital can be recorded.

COC=IrP—IrA

Where: IrP - I section of the balance sheet liability;

IPA - I section of the asset balance.

The presence of own and long-term borrowed sources of reserves and costs (SD), determined by increasing the previous indicator by the amount of long-term liabilities (Pr - II section of the liability side of the balance sheet):

SD = SOS + IrP

The total value of the main sources of formation of reserves and costs (OI), determined by increasing the previous indicator by the amount of short-term borrowed funds (GLC):

OI = SD + KZS

Three indicators of the availability of sources of formation of reserves correspond to three indicators of the availability of reserves of sources of formation:

1 Surplus (+) or shortage (-) of own current assets (D SOS):

D SOS = SOS - 3

where 3 - stocks.

2 Surplus (+) or shortage (-) of own and long-term sources of stockpiling (D SD):

SD = SD-3

3. Surplus (+) or deficiency (-) of the total value of the main sources of stockpiling (DPI):

D OI = OI - 3

To characterize the financial situation at the enterprise, there are four types of financial stability:

The first - the absolute stability of the financial condition, which is extremely rare in the present conditions of economic development, is given by the condition:

3 <SOS + K

where K - bank loans for inventory taking into account loans for goods shipped and parts of payables credited by the bank when lending;

The second - the normal stability of the financial condition of the enterprise, guaranteeing its solvency, meets the following condition:

3 = SOS + K.

The third is an unstable financial condition characterized by a violation of solvency, in which it remains possible to restore equilibrium by replenishing sources of equity and increasing SOS:

3 = SOS + K + IOFN

where IOFN - sources that ease financial tensions, according to the insolvency balance.

Financial instability is considered normal (permissible) if the amount of short-term loans and borrowed funds used to form stocks does not exceed the total cost of raw materials, materials and finished products.

Fourth - the financial crisis in which the company is on the verge of bankruptcy, because cash, short-term securities and receivables are not; even cover his payables and past due loans:

All relative indications of financial stability can be divided into two groups.

The first group - indicators that determine the state of working capital:

equity ratio;

the ratio of material inventories own working capital;

coefficient of maneuverability of own funds.

The second group - indicators that determine the state of fixed assets (fixed asset index, K long-term borrowed funds, K depreciation, To the real value of the property) and the degree of financial independence To autonomy, To the ratio of borrowed and own funds), where K is the coefficient (McBurney, D. H. and White T. L., 2009: p.56).

The calculated actual ratios of the reporting period are compared with the norm, with the value of the previous period, a similar company, and thereby reveals the real financial condition, weaknesses and strengths of the company.

Equity ratio:

$$Koss = \frac{IpP - IpA}{IRA}$$

It characterizes the degree of security of the enterprise SOS, necessary for financial stability. This ratio should be greater than 0.1.

2. The ratio of material inventories own funds:

$$Coms = \frac{IrP-IrA}{M3}$$

Shows the extent to which inventories are covered by own funds and do not need to borrow funds.

The coefficient of maneuverability of equity:

$$Km = \frac{IrP-IrA}{IRP}$$

The optimal value is 0.5.

It shows how mobile own sources of funds are from a financial point of view: the more, the better the financial condition.

Fixed Asset Index:

$$Kp = \frac{IRA}{IRP}$$

Shows the share of fixed assets and non-current assets in sources of equity.

If long-term borrowing, then Km + Kp = 1.

5. The ratio of long-term borrowing:

$$Kdpa = \frac{IIp}{IrP + IIIrP}$$

Assesses how intensively the company uses borrowed funds to update and expand production. (If capital investments made through lending lead to a significant increase in liability, then use is advisable.)

6. The coefficient of wear:

$$Ki = \frac{\text{Accumulated depreciation}}{\text{The initial carrying amount of property, plant and equipment}}$$

Or K expiration date = 1 — Ki (100% —Ki)

It shows the extent to which replacement and renewal of fixed assets were financed through depreciation (the longer, the greater K or accelerated depreciation can be).

7. The coefficient of real value of property (KRS):

$$Krcy = \frac{OS + \text{raw materials} + WIP + MBP}{\text{balance currency}}$$

Shows what proportion of the value of the property is the means of production, the level of production potential of the enterprise, the availability of production means of production (norm 0.5).

8. The coefficient of autonomy (financial independence or concentration of equity)

$$Cavt. = \frac{Ipp}{\text{balance currency}}$$

Means that all obligations of the enterprise can be covered by its own funds. Ka growth means increased financial independence.

9. The ratio of borrowed and own funds:

$$Ksssss = \frac{IpP + IIpP}{Ipp}$$

The growth in dynamics indicates an increasing dependence of the enterprise on attracted capital (<1).

The need for equity is due to the requirements of self-financing of enterprises. It is the foundation of the autonomy and independence of enterprises. However, it must be borne in mind that financing the activities of an enterprise only at its own expense is not always beneficial for it, especially in cases where production is seasonal. Then, in certain periods, large funds will accumulate in bank accounts, and in other periods they will be missed. In addition, it should be borne in mind that if prices for financial resources are low, and an enterprise can provide a higher level of return on invested capital than it pays for credit resources, then by attracting borrowed funds, it can increase the profitability of own (share) capital.

At the same time, if the enterprise's funds were created mainly from short-term liabilities, its financial situation will be unstable, as long-term capital needs constant operational work aimed at monitoring their timely return and attracting other capital for short periods. Consequently, the financial position of the enterprise depends on how optimally the ratio of equity to borrowed capital is.

In this regard, the important indicators that characterize the market stability of the enterprise are:

- coefficient of financial autonomy (independence) or the proportion of equity in total capital,
- financial dependence ratio (share of borrowed capital),

- leverage of financial leverage or financial risk ratio (ratio of borrowed capital to equity).

Table 8: The structure of the liabilities of the enterprise.

Indicator	Performance level		
	To start with	Finally	Change +/-
The proportion of equity in the total currency of the balance sheet (coefficient of financial autonomy of the enterprise),%	38,4	40,8	+ 2,4
The proportion of borrowed capital (coefficient of financial dependence of the enterprise) Including: Long term short term	61,6 - 61,6	59,2 - 59,2	- 2,4 - - 2,4
Financial risk ratio (leverage)			

Source: www.pashabank.com.tr

The higher the level of the first indicator and lower than the second and third, the more stable the financial condition of the enterprise. In this case, the share of equity tends to increase. Over the reporting period, it increased by 2.4%, since the growth rate of equity is higher than the growth rate of borrowed capital. The leverage of financial leverage decreased by 15%. This indicates that the financial dependence of the enterprise on external investors has significantly decreased and its market stability has increased.

The assessment of changes that have occurred in the capital structure may be different from the position of investors and from the position of the enterprise. For banks and other investors, a more reliable situation, if the client's share of equity is higher, this eliminates financial risk. The company is interested in borrowing funds. Having received borrowed funds at a lower percentage than the economic profitability of the enterprise, it is possible to expand production and increase the return on equity.

3.2. Recommendations for improving financial stability of the company

The financial condition reflects the organization's ability to finance its current activities, constantly maintain its solvency and investment attractiveness. For this, it must have a sufficient amount of capital, an optimal structure of assets and sources of financing. It is equally important to use the funds in such a way that revenues exceed costs, thereby ensuring stable solvency and increased profitability. In the modern economy, managing the financial condition of a company and methods for evaluating it are the most important elements for successful business organization and increasing the efficiency of its functioning. Based on the analysis of financial stability, it is necessary to determine what type of financial stability a particular enterprise belongs to:

Absolute financial stability is characterized by the complete solvency of the enterprise, it does not need additional financing. Normal financial stability is characterized by the solvency of the company and the competent distribution of borrowed funds. Financial instability is characterized by low solvency of the enterprise and the need to attract additional funds to be able to carry out their activities in the future. The financial crisis is characterized by the lack of solvency of the enterprise, it has a high probability of insolvency (bankruptcy) (Brammertz W., 2011, p.298).

If an enterprise is financially unstable or is in a financial crisis, it is necessary to carry out a number of measures aimed at improving the financial stability of the enterprise - these are measures to improve management efficiency and ensure sustainable implementation, and accelerate the turnover of working capital. To ensure financial stability in the context of the financial crisis, it is necessary to take a number of anti-crisis measures that will be aimed at reducing all cost items, increasing the flow of funds to the organization necessary to pay off debt, as well as aimed at increasing sales and making profit. For an anti-crisis policy to be effective, as a rule, it is necessary to use new management techniques - a change in the conduct of activities that takes into account previously made mistakes in managing the organization as a whole and in

financial management directly. The aim of the implementation of local measures to increase financial stability is to ensure a stable financial position of the enterprise, which is characterized by competent distribution and the ratio of own and borrowed funds. The ideal ratio is when own funds exceed borrowed ones.

At the initial stage, it is necessary to restore the solvency of the organization in order to prevent the development of a crisis in the future, in the future, financial recovery should already be aimed at the optimal use of the organization's potential for generating profits, and, therefore, at maintaining long-term financial stability. Most enterprises resort to external financing for business development and further profit. But not many can correctly calculate the real profit from the invested funds and the consequences of the acquired loans, for which it is necessary to pay interest, because of this many suffer losses. In order to maintain the financial stability of the enterprise, it is necessary to be able to correctly distribute and manage own and borrowed funds.

Organizations are on the verge of bankruptcy due to inefficient production and commercial activities. common reasons for this are the large volume of accounts payable and receivables, the management of which requires a lot of labor. Far from all enterprises, accounts receivable and payable are competently monitored, which subsequently lead to financial instability. The following activities for the management of receivables and payables are proposed (Campbell P., 2017: p.520):

1) Establish a system for collecting debts: - develop internal reporting for monitoring receivables and payables (Payment calendar and Rules for receivables management); - analyze the composition of the contracts in terms of the timing and amount of penalties in case of late payment under the contracts; - monthly control payment on time under contracts for each counterparty, maintain a single table for the timely detection of overdue receivables; - monthly reconcile settlements for all counterparties in order to control receivables.

2) To organize consistent work with counterparties having receivables: - regular telephone conversations; - dispatch of written notifications and claims; - development

of individual debt repayment schedules; - timely appeal to the court; - termination of customer service.

3) Develop a strategy for paying off payables - attracting sources of financing. One of the measures to increase financial stability is measures to increase equity. The increase in equity is due to an increase in authorized capital, a decrease in dividends and an increase in retained earnings and reserves.

Internal sources of equity are formed in the process of economic activity and play a significant role in the life of any enterprise, since they determine its ability to self-finance. An enterprise that is able to fully or significantly cover its financial needs from internal sources receives significant competitive advantages and opportunities, reduces its risks. Federal Law of 08.02.1998 N 14-ФЗ "On Limited Liability Companies" classifies in detail the ways to increase the authorized capital (Dickman G., 2005: p.63):

- at the expense of the property of the company;
- due to additional contributions by participants;
- based on the application of an individual participant (individual participants) on making an additional contribution;
- based on the application of a third party (statements of third parties) on making an additional contribution. To improve the competitiveness of the enterprise, it is necessary to constantly monitor the quality of the goods and services provided, this is also one of the measures to increase financial stability.

A quality product at a reasonable price is the key to further profit. The implementation of measures for financial recovery is a long labor-intensive process of developing and implementing significant changes in the organization. These measures should be so effective that the company can survive financial difficulties in an unstable market environment and become profitable.

The formation of analysis and diagnostics of the financial and economic activities of the company is due to general objective requirements and conditions that are characteristic of the emergence of any new branch of knowledge.

First, the satisfaction of practical needs. It arose in connection with the development of productive forces, the expansion of production. Intuitive analysis, approximate calculations, memory calculations, which were used at artisanal and semi-artisan enterprises, became insufficient in conditions of large production units. Without a comprehensive comprehensive analysis, it became impossible to manage complex economic processes and make optimal decisions.

Secondly, it is connected with the development of economic science in general. As you know, with the development of any science there is a differentiation of its branches. The economic analysis of economic activity was formed as a result of the differentiation of social sciences. Previously, the functions of economic analysis were considered within the framework of such scientific disciplines as balance sheet science, accounting, finance and statistics4. Within the framework of these sciences, the first simplest methods of analytical research have appeared. However, to justify the current and five-year plans for the economic and social development of enterprises, a need arose for a comprehensive study of their activities. The aforementioned sciences could no longer provide all the demands of practice. There was a need to highlight the analysis of financial and economic activities in an independent branch of knowledge. In the future, the role of analysis increased correspondingly to the price of error in economic activity. Interest in him has increased markedly. A more comprehensive in-depth study of production has begun. Economic analysis has become an important tool for the planned management of the enterprise economy, identifying reserves to improve production efficiency.

The current state of analysis can be characterized as thoroughly developed in the theoretical plan science. A number of techniques created by scientists are used in production management at different levels. However, science is in a state of development. Research is being conducted in the field of the wider use of mathematical methods, computers, allowing to optimize management decisions. There is a process of

introducing the theoretical achievements of domestic and foreign science into practice (Sharan G., 2008: p.96).

The prospects for the development of analysis and diagnosis of financial and economic activities in the theoretical direction are closely related to the development of related sciences, primarily mathematics, statistics, accounting, etc. In addition, the development of analysis also depends on practical needs. In the conditions of the command-administrative management system, he did not find wide enough practical application, since there was no need to justify management decisions on the ground, all decisions came from above.

As for the prospects of applied nature, the analysis and diagnostics of financial and economic activities will gradually take the leading place in the management system. This is facilitated by the transformations that are taking place in our society. Improving the economic mechanism, competition of enterprises and patterns of ownership will help to increase interest in this science.

The main goal of business management is to increase profits, increase operational efficiency, and achieve sustainability of the organization in the market. To search for funds, opportunities and reserves to improve the organization's work, increase competitiveness, improve financial condition and results, optimize planning, an economic analysis is used. The desire of organizations to improve their own situation and ensure the stability of the development of economic activity, make economic analysis relevant.

Under the economic activities of the organization understand any operations leading to a change in its capital, in connection with which such operations are also called financial and economic activities.

The complex economic analysis is represented by financial analysis and analysis of economic activity.

The subject of financial analysis, as a special area of comprehensive economic analysis, is the consideration of the current and future financial condition of a business

entity changing under the influence of external and internal environment and management decisions in order to assess its financial stability and performance

The focus of financial analysis is to justify managerial decisions, the consequences of which will appear in the near or distant future, therefore, the most important task of financial analysis in modern conditions is a prospective assessment of the financial condition of the enterprise and its financial stability in the future from the position of their compliance with the goals of the development of the enterprise in a changing external environment and the internal environment (Vandyck C.K, 2006, p.45).

To increase the efficiency of using the assets of the enterprise, we propose to open a paid parking lot on an unused territory of Company, whose area is 20 hundred parts. For this, it is necessary to enclose part of the territory that will be intended for the parking lot from the total area of the enterprise. This will require 50 meters of the protective structure at a cost of 2 thousand tenge per meter, and a watchman's booth that will monitor the cars at night. This event will bring the company an average profit of 10,950 thousand tenge per year.

The second identified problem in the analyzed enterprise is overstocking of finished products. To overcome it, it is necessary to increase the efficiency of using stocks at the enterprise. The past experience of Company, presented in the equation below, was taken into account:

From this equation we obtain revenue from sales in the amount of 3067 thousand tenge. It is also necessary to carry out a review of the weighted average values of stocks of products in warehouses for a day, week, month. Perhaps the size of the stocks is unreasonably overstated, which, of course, affects payables, the value of which should be reduced.

After the activities proposed on the basis of assessing the financial condition of the enterprise will be put into practice, the financial stability of Company will acquire an upward trend, which was the main task of the work.

When conducting an analysis of the financial condition of Company, we came to the conclusion that the enterprise is functioning successfully. Problems were identified that did not turn out to be dominant and determining the whole strategy of Company. (McBurney, D. H. and White, T. L 2009: p.524)

To guarantee sufficiently reliable insurance coverage, it is necessary to have the appropriate funds used to carry out (pay) production factors and make insurance payments. Differentiation of these costs and payments in time requires a sufficient amount of equity, which guarantees the continued existence of the insurance company. An attempt to achieve these guarantees is possible while ensuring the fulfillment of two components: the optimal design of equity and sufficient insurance reserves6.

The constituent elements of the insurer's own capital include authorized capital, a reserve fund formed from profit, and retained earnings. In addition, in some cases, the own funds can be attributed to the consumption fund and the accumulation fund formed at the expense of the insurer's net profit. The common thing for them is that they are free from any external obligations, therefore, in foreign practice they are usually called “free reserves” or “solvency reserve” (margin).

Equity is formed from two sources: contributions of the founders and profits derived from the activities of the insurer, and are reflected in section I of the liability sheet. In order to ensure financial stability, the amount of free reserves should be the greater, the greater the volume of operations of the insurance organization. Moreover, depending on the nature and dynamics of operations, the following are accepted as their volume: for life insurance, the value of technical reserves, for other types of insurance, or the amount of insurance premiums received, or the average amount of insurance payments over a number of years. Free reserves can also be defined as the difference between the assets of the insurer and the amount of its obligations, the bulk of which are insurance reserves.

The formation of equity is carried out by making the contributions of the founders and subsequent replenishment from the profits from insurance activities,

income from investing funds, as well as by increasing the share of the founders and the additional issue of shares (issue).

The authorized capital of an insurance organization is formed from cash contributions of its founding members at the expense of an individual contribution (private company) or through group investment by members of a joint stock company (Matz L. and Neu P., 2006: p.66).

In accordance with the requirements of financial statements, additional capital is allocated in the structure of equity. The source of the formation of additional paid-in capital is: funds received as a result of revaluation of fixed assets; share premium resulting from the placement of shares; funds donated by other organizations.

Another component of equity is the so-called reserve capital (until recently, the reserve fund, often called “capital reserves” in world practice). The methodology for the formation of the reserve capital of the insurance organization does not bear industry specifics, but corresponds to the general principles of organizing the economic activity of enterprises. It does not oppose any financial obligations and is an addition to the authorized capital. Reserve capital is created in accordance with legislation and constituent documents. Part of the profit is used to form it until it reaches a certain amount of authorized capital. Under certain circumstances, reserve capital can be used to cover non-production losses and losses, as well as to redeem the company's bonds and redeem the company's shares in the absence of other means. This reserve of the insurer, which is spent in case of insufficient funds of the respective funds for on-farm settlements. Such a situation may develop in unprofitable years for the insurance company. The formation and use of this reserve is based on the legislation on joint stock companies. In addition to shareholder contributions, capital reserves can also be created due to the fact that the owners of the enterprise transfer funds to the insurer in an amount exceeding the amount of the declared authorized capital. In domestic practice, such reserves are called reserve funds. These may be special tools used for certain purposes. However, these stocks, as a rule, can also be created by issuing new shares if their issue

rate is higher than the nominal value. The difference (less the cost of issuing shares) is deducted to the reserve fund.

Another type of reserves are the so-called deductions from profits to the reserve fund. These are funds received as a result of the insurer's own activities, which, moreover, have already been taxed. Due to deductions from the insurer's net profit, a consumption fund and an accumulation fund are formed. At first glance, the recognition of their own reserves is in doubt, since they have a purpose that is not related to the actual insurance activities. However, given that these funds are not bound by any external obligations, under certain conditions they can be classified as free reserves.

Some authors believe that equity capital in general and charter capital in particular for an insurance organization are not of particular importance, since targeted insurance reserves are formed to fulfill obligations to policyholders. This approach, in my opinion, is not entirely true. In order to ensure the financial stability of the insurer, both in Russia and abroad, the minimum statutory capital required to start operations is legally established. This is due, on the one hand, to the fact that at the initial stage the insurance organization has no other means to fulfill obligations under insurance contracts, except for the authorized capital, since the receipt of insurance premiums at first is very insignificant. On the other hand, the large amount of start-up capital allows the company to more confidently plan its behavior in the market, carry out fairly large operations and thereby be able to withstand the competition. In addition, insurance premiums paid by policyholders, which are the main source of insurance reserves, are paid for a limited period, while an insurance company is created for an indefinite, arbitrarily long period (Lawrence, K. D. and Kimberg, R. K., 2010: p.96).

Therefore, when creating an insurance company, the main attention should be paid to the size and structure of the authorized capital, i.e. the basis of the financial stability of the insurer is laid even at its establishment. However, the value of the authorized capital and, in general, free reserves does not decrease even when the insurer has been active in the market for a long time. Their role in ensuring the financial

stability of current activities is no less important than the role of insurance reserves, because even the most accurate calculation of insurance reserves is only an assumption, and because of this, with the most stable portfolio and the most reliable statistical justifications and mathematical methods, there remains the risk of fluctuations in the loss ratio unfavorable for the insurer.

This may be a result of his unsuccessful tariff policy or unwanted changes in the structure of contracts, impairment of assets (real estate, securities, etc.) due to the deterioration of the general economic situation, insurers presenting additional claims for insurance payments, which the insurer has already considered settled, and etc. Moreover, the situation may be such that in order to maintain its position in the market, the insurer will need to expand the range of operations, which will require the adoption of risks that are not already secured by insurance at first.

The authorized capital is intended to ensure the statutory activities of the enterprise and can be used to cover the costs of insurance payments in the event of a shortage of insurance reserves and current insurance premiums. The authorized capital is formed in the manner and amount determined by law and constituent documents.

In accordance with the amendments and addenda to the Law of the Russian Federation “On the organization of insurance business”, a new scale is established for the minimum amount of paid-up authorized capital, which significantly increases its size.

The minimum amount of paid-up charter capital, formed at the expense of money, on the day the legal entity submits the documents for obtaining a license to carry out insurance activities must be at least 25 thousand minimum wages - for types of insurance other than life insurance, at least 35 thousand minimum wages - for life insurance and other types of insurance, at least 50 thousand minimum wages - for exclusively reinsurance.

Reliability, financial stability of the insurance organization is very “visible” in the analysis of equity, where a very important indicator of the level of equity,

characterizing the security of assets. Analysts prefer the stability of this coefficient at a fairly high level (not lower than 0.2). The higher the share of equity, the higher the financial stability of the insurer. A number of authors call this coefficient a coefficient of autonomy, i.e. its increase indicates an increase in financial independence, a decrease in the risk of financial difficulties in the future10. However, it is very important to characterize financial stability so that equity exceeds the amount of borrowed capital (Connolly M, 2006: p.12).

A certain influence on ensuring the financial stability of the insurer is provided by its legal form. Legislation of foreign countries has recently allowed the creation of insurance organizations, as a rule, in one of three legal forms: a state-owned enterprise, an open joint-stock company, and a mutual insurance company. The priority of these forms of organization of the insurer is explained by the fact that the interests of the clients of such companies are best protected both in the legal and financial sense. The situation on the Russian market is somewhat different, as the prevailing legal form are closed joint-stock companies. It is believed that a state insurance organization (by which we mean an organization where more than half of the authorized capital is owned by the state) has the greatest guarantees of fulfilling obligations under an insurance contract, since both the legal and financial obligations of such an organization are supported by the authority of the state.

CONCLUSIONS AND RECOMMENDATIONS

In the dissertation research, the following main results were obtained.

1. Essential differences have been identified related both to the objectives of the research and to the specifics of the author's approach in the framework of the evolutionary theory of economics and the theory of dynamic systems, which were applied to the concept of "financial stability". The approaches of researchers to the definition of the term "financial stability" are examined and classified. The ambiguity of the approaches existing in the economic literature to determine the essence of financial stability allowed the author to clarify this concept and offer his own interpretation of financial stability, including both a formal description of the dynamics of the evolution of the financial system of an enterprise, and qualitative content based on elements of evolutionary, institutional economic theory and theory of dynamic systems.

2 Description in the framework of the proposed author's approach, gives the financial condition of the enterprise, as a dynamic system, integral factors, is the result of the interaction of many subsystems (elements of the enterprise's finances), which manifests itself as self-organization. The feasibility of representing the stability of the financial system of the enterprise as the ability of the financial system to maintain movement along the intended path (to maintain the intended mode of operation) despite the disturbances acting on it is substantiated. In the center of dynamics research are critical (threshold) states in which the financial state changes its type of dynamics, and the financial system of an enterprise may experience non-equilibrium transitions between stability and chaos.

The internal and external factors affecting the financial stability of the enterprise as an evolutionary, dynamic system are systematized. The proposed classification of factors of financial stability is made in the context of conditions that affect the movement towards a stable financial condition of the enterprise, taking into account a

significant degree of uncertainty in the external environment of the enterprise and the variety of possible target parameters for managing the financial company.

3 The approaches to the assessment and forecasting of the financial stability of economic entities from various methodological positions are examined. It is shown that the existing methodological approaches do not fully reflect the concept of financial stability. Practically used methods of assessing financial stability do not take into account the evolution of the enterprise's financial system in fast processes of changing external and internal environment, and therefore, they do not allow predicting the financial condition, which necessitates the development of a methodological approach to assessing and forecasting the financial stability of an enterprise as a complex dynamic process.

The aim of the study is fulfilled - on the basis of the system analysis method, which allowed combining qualitative and formal methods for describing the financial stability of an enterprise from the standpoint of evolutionary theory of economics and the theory of dynamic systems, the author's methodical approach to planning financial stability of an enterprise as an integrated adaptive system with feedback has been developed. The essence of the methodological approach is to assess the stability of the financial condition and predict the dynamics of the development of the financial system of the enterprise. Using the proposed methodological approach to planning the financial stability of the enterprise provides sustainable development of the enterprise, financing of various types of activities of the enterprise from external and internal sources, as well as the rational use of financial resources. It is shown that for an enterprise, financial stability management can be an important factor in increasing the efficiency of its activities, as allows you to optimize the use of various types of resources. Assessment and forecasting of the available opportunities to increase the economic activity of the enterprise in the promising areas of economic growth and financial stability are developed on the basis of using the complex of competitive advantages available to the enterprise, analysis of factors of the external institutional and internal environment of

the enterprise. According to the developed methodological approach, the management of financial resources is carried out in the context of the components of the financial potential of the enterprise, taking into account the costs of implementing each alternative to the use of financial resources and efficiency in terms of goals.

4 The main element of the methodological approach to planning financial stability is the methodology for assessing and forecasting the financial stability of an enterprise, including an algorithm for choosing a strategy and tactics for the development of an enterprise depending on the forecast of financial condition. The calculation basis of the methodology is the author’s model of the dynamics of the financial condition of the enterprise.

5 The proposed methodology has been tested on the information array, including performance indicators of three Russian enterprises. The author's conclusions and recommendations found practical confirmation in the activities and planning of the financial stability of Russian industrial enterprises. The implementation of the proposed methodological approach allows you to make informed decisions on planning and financial management of the enterprise, which leads to better integration into the market environment and strengthen the financial position of the enterprise in the future.

According to the developed methodological approach, the formation of the structure of an action plan for managing financial stability based on a systematic approach provides for six main components:

1) the goal-setting provides for the existence of a single development goal for the enterprise;

2) the economic strategy and tactics are implemented to develop a financial strategy plan and tactics of financial stability management;

3) forecasts of the economic development of the enterprise are an integral procedure of the methodological approach to assessing and forecasting financial stability;

4) targeted integrated programs are implemented as work at the enterprise in several financial areas;

5) the functioning mechanisms determine the choice of appropriate management methods and focus on the short, medium or long term planning period;

6) management parameters determine the organizational structure of managing the financial stability of the enterprise.

6 Developed recommendations for planning and managing the financial stability of the enterprise. Recommendations on strengthening financial stability within the framework of the financial strategy and tactics of enterprise development, taking into account factors of the external and internal environment in their functional and temporal relationship, are based on the development of methodological principles of optimal planning: the mathematical expression of the state of the enterprise financial system provides a single criterion for classifying enterprises according to the type of financial sustainability; the need to consider the economy as a hierarchically built self-developing system determines the distinction between evolutionary and revolutionary dynamics of the development of the financial system of an enterprise; an algorithmic description of the mechanisms for reconciling goals and interests at the hierarchy levels ensures the consistency and order of the stages of the methodological approach for assessing and forecasting the financial stability of an enterprise. The proposed recommendations can serve as the basis for the formation of an action plan by owners, financial managers and arbitration managers to improve the financial stability of the respective enterprises. Thus, the study confirmed the initial hypotheses and allowed us to implement the tasks. However, it must be taken into account that within the framework of one study it is difficult to completely solve the problem of developing a methodological approach to planning the financial stability of an enterprise as an evolution of a complex dynamic system of enterprise finance. This is caused both by the need for further development of existing concepts, theories and methodologies, the emergence of new theoretical studies and their practical application in enterprises.

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APPENDİX

Appendix 1

Table 3: Financial data of current alternative reports

№	Financial indicator	The value of the financial indicator (1000AZN)			
		*a*1	*a*2	*a*3	*a*4
01	Capital	80999	379839	143963	499149
02	K1 Capital Level 1	59494	191463	138345	328238
03	AVUR - Asset Weighted Assets	312251	1621463	238355	1553166
04	VG - Deposits of citizens	116825	877393	92234	775936
05	SPE - Legal entities funds	226312	1578184	62073	2114025
06	OOPS - Total Funds Raised	343137	2455577	154307	2889961
07	JI - Total liabilities	357463	2860457	171241	3459266
08	EFA - Demand Liabilities	49003	635583	58831	875668
09	PBC - Attracted Interbank Loans	4317	66068	10665	399973
10	APD - Income-generating Assets	455355	3211739	298886	3923287
11	CA - Total Assets	438462	3240296	315204	3958415
12	SZ - Total debt	455355	3211739	298886	3923287
13	RRVPS - Estimated reserves for possible losses on loans	38048	90643	9770	63324
14	PRB - Bank Resources Attracted	347454	2783716	164972	3289934
15	SZP - Loan debt overdue	86170	28680	18069	116090
16	GCC - Total loan debt	1589820	1826306	1964140	2006021
17	SKSTOKU - The total amount of credit claims in respect of large participants (shareholders)	5040	4465	33649	138639
18	VA - Highly liquid assets	40181	248290	24828	315691
19	PS - Raised funds	355073	2875035	183266	3499839
20	LA - Liquid Assets	36650	757390	66903	801499
21	FFA - Demand Liabilities	289325	1819280	79137	1275797
22	P - Profit	7953	112407	1458	89092
23	NPD - Net Interest Income	20781	176053	19411	141739
24	SAPPD - Total interest earning assets	191660	2126562	196414	2455848

25	AUR - Administrative and administrative expenses	22858	124024	21754	74818
26	CHOD - Net Operating Income	56190	888890	38150	111910
27	OP - Operating expenses	5577	11137	2160	13640
28	OD - Operating income	11196	100026	5975	24831

Source: http://www.immsp.kiev.ua/ - 2019

Appendix 2.

Table 4: The System of financial ratios of stability of Pasha Bank

FK	Stability coefficient	Calculation formula (×100%)
*F*1	Capital adequacy ratio	*F*1=К/АВУР
*F*2	Tier 1 capital adequacy ratio	*F*2=К1/АВУР
*F*3	Customer base ratio	*F*3=(ВГ+СЮЛ)/ООПС
*F*4	Resource base stability coefficient	*F*4=(СО-ОДВ)/СО
*F*5	Dependence coefficient on attracted interbank loans	*F*5=ПМБК/ООПС
*F*6	Asset utilization ratio	*F*6=АПД/СА
*F*7	The coefficient of aggressiveness of credit policy	*F*7=СЗ/ПРБ
*F*8	Loan policy quality ratio	*F*8=(СЗ-РРВПС)/СЗ
*F*9	Share of past due loans	*F*9=СЗП/ССЗ
*F*10	Concentration of credit risks on shareholders	*F*10=ССКТОКУ/К *F*10=ССКТОКУ/К
*F*11	(participants)	*F*11=ВА/ПС *F*11=ВА/ПС
*F*12	The ratio of highly liquid assets and	*F*12=ВА/ОДВ
*F*13	borrowed funds	*F*13=ЛА/ОДВС
*F*14	Instant liquidity ratio	*F*14=ОДВ/ПС
*F*15	Current liquidity ratio	*F*15=П/СА
*F*16	The ratio of the structure of borrowed funds	*F*16=П/К
*F*17	Return on assets	*F*17=ЧПД/САППД

*F*18	Return on equity	*F*18=АУР/ЧОД
*F*19	Net interest margin	*F*19=ОР/ОД
*F*20	The ratio of operating expenses and assets	*F*20=ОР/СА

Source: http://www.immsp.kiev.ua/ - 2019

TABLES LIST

TABLES LIST