total of 5,696 observations. The 252 banks were then divided into two groups, those which were declared insolvent during the observation period (90 banks) and those with continuing operations (162 banks).

Reviewing the z-scores measured for both groups, there is a clear evidence that the group of failed banks has, on average, significantly lower z-scores than the group of performing banks, which translates into higher default probabilities. The average of the median z-scores for insolvent financial institutions over the observed 34 quarters is 3.02 across the observation period, implying an upper bound for the default probability of 9.9% (N=1,896 observations) while the average median z-score for performing banks is 17.26 indicating an upper bound for default probability of only 0.3% (N=3,800).

However, large in-sample standard deviations can be observed for individual banks. This leads to average z-scores being higher for both groups compared to the median, with average z-scores across the observation period at 45.92 for performing banks (0.0% upper bound for default probability) and 22.05 for insolvent banks (0.2%).

In conclusion, the results demonstrate that using the z-score is a very useful method to monitor insolvency risk among financial institutions. The metric is easy to calculate and based on widely available accounting data. However, any preliminary screening of z-scores should be complemented with an in-depth analysis of a bank's individual financial position, considering the large in-sample volatility observed. Given the infrequent nature of financial reporting with often only four data points per year, market-based data, where available, could allow to form a more immediate picture of a bank's financial health.

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THE EXPERIENCE OF INVESTMENT REGULATIONS OF PENSION FUNDS IN BALTIC COUNTRIES AND ITS APPLYING IN UKRAINE

There is a discussion around a question about ways of changing of investment legislation of private investment funds in financial world in Ukraine. It is caused by very low effectiveness of funds from one side and other side – an absence of attractive objects of investing which has direct influence on future income of individual investors [1]. In this thesis we begin to regard the popularities of European

Union countries which have become a part of it recently not so long ago. We will talk about Latvia, Estonia and Lithuania.

In *Latvia*, investment regulations differ, depending on whether pension plans are managed by the State Treasury or by private companies. The State Treasury is only allowed to invest in Latvian government securities, bank deposits, mortgage bonds and deposit certificates. Moreover, it can only invest in financial instruments denominated in the national currency. In contrast, private managers are allowed to invest in a much broader range of financial instruments. The main investment limits include the following: 35% for securities guaranteed by a state or international financial institution, 5% for securities issued or guaranteed by a local government;

10% for securities of a single issuer, except government securities; for deposits at one credit institution (investments in debt and capital securities of the same credit institution and derivative financial instruments may not exceed 15%); and for securities issued by one commercial company (or group of commercial companies; 20% for investments in non-listed securities; 5% for investments in a single fund (10% of the net assets of the investment fund).

There is no maximum limit for international investments, as long as pension funds invest in securities listed on stock exchanges in the Baltics, other EU member countries or the European Free Trade Area. However, the law stipulates a 70% currency matching rule. There is also a 10% limit for each non-matching currency (since 2005, the euro has been exempted from investment restrictions on foreign currencies). Investments in real estate, loans, and self-investment are not permitted.

Contrary to many other CEE countries running mandatory pension systems, there is no requirement for pension funds to guarantee a certain minimum return. On the contrary, doing so is explicitly forbidden.

Overall asset allocation in Latvia is fairly conservative despite the possibility of choosing a plan according to risk preference. In late 2006, 55% of assets were invested in debt securities, 26% in time deposits, 14% in investment funds and 5% in equities. Active pension funds do often not exploit the 30% equity limits foreseen by Latvian investment regulations. Out of the 10 active funds on the market, only one really has a 30% equity share, while four have an equity exposure between 20% and 30%, three hold equities between 10% and 20%, and two have less than 10% equity in their portfolio.

Estonia. Pension fund managing companies can offer more than one fund, provided that investment policies differ significantly and that one of these funds is invested in fixed-income products only. The main maximum investment limits are as follows: 40% in real estate or real estate funds; 35% for securities issued and guaranteed by the Estonian government, a European Union member country or states with a similar risk profile; 30% for investment funds of companies belonging to the same group as the pension management company; 10% for investments in fixed assets; 5% for securities issued by the same group; for securities issued by a single investment fund; for the pension management company's investment funds and for deposits at credit institutions of the same group.

Regulations concerning international investments are distinctly liberal. There are no limits on investments in the European Economic Area, OECD countries and certain other countries.

Lithuania. Pension plan assets must be invested in a diversified investment portfolio. This means that the assets of every pension scheme must be invested in a portfolio comprising securities, real estate, commercial bank deposits and deposit certificates issued by banks. This portfolio is subject to the following maximum limits: 30% for assets of the same issuer, provided they are issued or guaranteed by the central or local government, 30% for debt securities of a single issuer, with the exception government securities; 20% for real estate; 25% for investments in securities issued by persons related to the pension fund.

Other regulations deal mainly with limits for securities of a single issuer. With regard to international investments, Lithuania has taken a very liberal stance. There are no restrictions for foreign investments for pension funds, nor are there minimum rates of return.

Pension funds are not allowed to invest in the following financial instruments:
-Securities issued by pension funds- Securities issued by a management enterprise with which the pension fund has concluded an asset management agreement- Securities issued by enterprises or other organizations related to the management enterprise
- Derivative financial instruments, with the exception of instruments recognized by the Securities Commission and used for risk management.

In conclusion, on our opinion in Ukraine it is possible to apply experience of Baltic countries in such ways: to increase investments in securities of European Union listed on different stocks enterprises; to allow make an investments in assets which are guaranteed by international government of a country with positive risk profile; to invest in fixed-income products only. These actions will have a positive influence on pension's funds in Ukraine and reinforcement of pension system in general.

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ЗАРУБІЖНИЙ ДОСВІД РЕФОРМУВАННЯ ПЕНСІЙНОЇ СИСТЕМИ ТА ПЕРСПЕКТИВИ ВПРОВАДЖЕННЯ НАКОПИЧУВАЛЬНОГО РІВНЯ В УКРАЇНІ