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# Stres Test Practicing At The Turkish Banking Sector With 2014 Data

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## Extensive Summary

In this study, the resistance of the banking sector against the risks that it may face in the times of economic crisis is calculated. Banking sector is divided to four main groups; Public, Domestic Private, Foreign and Participation Banks and in the calculations, financial data and ratios of 2014 are used.

In this analysis that consists of three stages; the capital adequacy ratios of the banks, the liquidity ratios and net foreign currency general position / changes of the legal equity ratios against the possible shocks. Legal limits determined by the Banking Regulation and Supervision Agency are taken into account as the main criteria.

In the first stage, the shock waves of the tracking of the loans, respectively, 3% and 15 % and 10% are sent, the changes of the banking groups' capital adequacy and response ratios are considered with the frame of assumptions. While the sector succeeded staying above 12% in the first two shocks where there were 3% and 5% of the loan lost, in the case of 10% of the loan tracking, although it falls below 12% of the control limit, it stayed above the legal limit of 8%. Public banks were the group of banks that are least affected and they had the highest capital adequacy ratio against the shocks because of their strong capital and active structure and as the loans and credits given to the public were mainly given to the encumbered and to SMEs. While the foreign banks were the second group of banks that had the highest capital adequacy ratio, domestic private banks were, especially in the third shock wave of loans, in the case of 10% tracking, the lowest banking group with 7,46% of capital adequacy ratio and fell under the legal limit of 8%. The group of banks that were the most affected are domestic private banks with the response rate of 51,59%. Participation banks were the banks that were affected the most against the possible loan tracking shocks due to their higher share of loans in their assets. Capital adequacy ratio fell under the control limit to

11,32% in the second shock wave and in the third shock wave, it fell below the legal limit, to 7,88%.

In the second stage of the study, with the assumptions of the 2014 year end financial figures, over the banking groups' total deposits, in the case of deposit outputs that are respectively 5%, 10%, 20% and 30% , the affect on the liquidity adequacy ratio in the periods of one week and one month. In general terms, banking sector can be said to have the strong structure up until 10% sudden deposit output against the liquidity crisis. But it cannot protect the sector liquidity level in the level of 100% in the third shock waves, in the ratio of 20% in deposit output and in the fourth shock wave, in the ratio of 30% in deposit output. Among the banking groups, Participation Banks are the group of banks that are the most affected by the shocks in their liquidity ratios. This group was the lowest banking group with its Liquidity Surplus / Total Deposits ratio. Among the banking groups, foreign banks that have the highest Liquidity Surplus / Total Deposits ratio were affected the least. The ratios of response against the shocks, Public Banks and Domestic Private Banks showed reaction in the level of sector average and it was observed that public banks have stronger structure compared to domestic private banks.

In the last stage, another legal limit, foreign currency net limit/ legal equity ratio is analyzed under the assumptions of increase of the foreign exchange liabilities, with the ratios of, respectively, 1%, 3% and 5%, in accordance with the increases in exchange rate ratios and customer demand. In general terms, banking sector has been seen to balance foreign currency positions, in the change of 1% and 3%, be able to keep it under the legal limit of 20% against the shock waves and seen to exceed the legal limits in the ratio change of 5%. Public banks were the strongest group of banks with the positive foreign currency position and strong equity against the shocks with staying below the legal limits while foreign banks were the most affected banks with their highness of their foreign exchange assets, foreign currency position's being negative by year 2014 and low equity levels. Domestic private banks stay below the legal limit in the first two shocks with its strong equity but go out of the limit in the last shock. Although participation banks have strong balance and positive foreign currency position by year 2014, they have been affected a lot against the shocks. Despite staying under the legal limit in the first shock, it goes out of the limit in the last shock.

Our analysis shows that, especially after the 2001 crisis,with the legal regulations made after the negative conditions seen in the banking sector and with Banking Regulation and Supervision Agency's taking office, sector's resistance to the crisis have been increased. In response to the capital adequacy level's being determined as 8% in the international arena, the limit's being 12% in our country causes banks working with strong equity. With the effect of the crisis that happened in the past, the banks are watched closely as the liquidity and foreign currency position and they are seen to be ready against the negative situations with tight control.