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CRITICAL ANALYSIS OF RISK AT FREDDIE MAC.

The Federal Home Loan Mortgage Corporation, known as Freddie Mac, is a public government sponsored enterprise (GSE) created in 1970 to expand the secondary market for mortgages in the US. On September 7, 2008, Federal Housing Finance Agency announced it had put Fannie Mae and Freddie Mac (another key mortgage corporation) under the conservatorship of the FHFA. The action has been immediately described as «one of the most sweeping government interventions in private financial markets in decades». In order to analyze the factors which led the company to distress, the main flaws in risk management system and quick fixes that could have saved the company from problems are to be considered in this work.

Freddie Mac faced basically three significant types of risk: interest rate risk, credit risk, and operational risk. In my opinion, two of these categories had considerable flaws that affected the organization to a great extent creating the background for the crisis. My principal proposals are provided below throughout the text, which I think might have eliminated the potential problems of Freddie Mac.

Since the majority of revenues and expenses came from interest income (from assets in the retained portfolio) and interest expense (from funding those assets), respectively, sensitivity to interest rate changes was a significant source of risk. Changes in interest rates affected the notional amount of mortgages and MBS on Freddie Mac's balance sheet (due to prepayment factor) and the expected lives of remaining assets; therefore, Freddie Mac's interest rate risk management strategy aimed primarily to match the duration of assets and liabilities. Since Freddie Mac had short positions in call options embedded in its mortgage assets (prepayment), by financing those assets with callable debt, Freddie Mac was able to obtain some degree of hedging of its short positions in mortgage options (in 2004, 44 % of Freddie Mac outstanding long-term debt securities were callable). The remainder of its long-term non-callable debt was hedged with derivative contracts (interest rate swaps and swaptions). But there still was part of the risk that was not hedged which was regularly rebalanced with the mentioned hedges as the company considered appropriate. Having analyzed the measures to protect from the risk, I feel that Freddie Mac managed rather effectively the exposure to the changes of interest rates; however, there might be some advice given to hedge positions more with callable debt, because in the hypothetical systemic downfall the company might experience the failure of the counterparties to execute the obligations on the derivative market, which basically represent the part of credit risk of Freddie Mac.

Freddie Mac's primary source of credit risk was the risk of default by borrowers. To manage the risk, Freddie Mac purchased conforming mortgage loans that met certain credit conditions and would buy credit-risk mortgages only if they offered credit enhancement, higher fees, or higher yields. Freddie Mac's key form of credit enhancement was primary mortgage insurance, which was purchased against non-conforming loans with original loan-to-value (LTV) ratios above 80 %. Although some credit risk was transferred to a special purpose entity in a reinsurance transaction, Freddie Mac could obviously be highly damaged if not addressing the risk appropriately. I suppose that Freddie Mac could change the criteria for conforming loans as housing prices started to climb. Housing speculations and popular widespread application of realty as an investments instrument were the signs of the inceptive bubble on the market which artificially influenced the LTV ratio. Freddie Mac in this case might foresee the fundamental mispricing and strictly limit the purchase of high credit-risk mortgages by setting the minimal threshold of LTV to 70 % or lower.

Before 2003, operational risk management policy of Freddie Mac included only considerations about technology-linked problems and did not view accounting or financial disclosure and controls as related risks. Due to some reasons (specifically, for the increase of its credit-risk perception) Freddie Mac executed a number of measures to smooth earnings. Among the transactions performed for earnings management purposes was derivative instruments treatment (SFAS 113). The regulatory base for derivative instruments enabled to consider them differently (depending on whether they hedged fixed-rate instruments, variable-rate instruments, or were not used for hedging purposes) which provided Freddie Mac with opportunity of managing volatility and earnings to assure the potential investors in high credibility of the company and to strengthen the myth of government guarantee (which was beneficial for Freddie Mac). Employees that were involved in shifting earnings were compensated for doing that. Also, the lack of risk management, accounting and audit expertise was very crucial and was reported repeatedly by regulator investigations. Also OFHEO found insufficient the number of board of directors' meetings (5 times per year) and reported on filtering information for independent members. I suppose that creative accounting and neglect of audit and control mechanisms played Old Harry with Freddie Mac. The organization was not adequately controlled against the operational risk, and manipulations with reliability and integrity of the financial information just strengthened the potential negative consequences. It is difficult to deal with corporate culture issues if senior management objects changes and keeps maintaining the risky policy; nonetheless, if back in 2004, I would advice on equipping the accounting and audit department with enough experienced personnel and would advice on creating motivational policy in favor of those who previously were treated like «second-class citizens» (accounting, financial reporting, and internal control). However, shifting the paradigm in the perception of risks and appropriate dealing with them would be unpredictable and could trigger the crisis of trust among financial institutions. The explicit dispel of the myth of government guarantee would have also severely affected Freddie Mac pushing interest rates up and exposing it to additional risks never experienced before; therefore, I would recommend to retain from that.

Due to high interdependency in the financial markets, Freddie Mac (as well as Fannie Mae) represented the risk when the failure of a single entity can cause «domino effect» relating to cascading failure and bankrupt of the entire system.

The economic growth of the country was basically the primary assumption underlying the Freddie Mac structure. The assets pooled together into the MBS (as well as other factors to stimulate the loan and credit facilities) were constructed to sustain the political issue of providing every family with affordable house. However, for some reason long-term business cycles were not considered adequately, and the risks concerning potential recession were not effectively addressed. In crisis the correlations between mortgages are close to 1, and systemic risk rockets up. As investigated later, Freddie Mac packed the securities even not diversifying them regionally. In case of the economic difficulties in any single state or city, the whole pack of the mortgages could default. Thus, the mortgage related securities in the balance sheet of Freddie Mac represented a threat for the whole financial system in the case frequent defaults of the households which might appear in the downfall of the economy.

As for off-balance derivative construction, the credit risk of the Freddie Mac's counterparties played a big role, because the company was one of the key players on the derivative market. If things went wrong, Freddie Mac would simply be unable to hedge the positions. Besides, Freddie Mac could ask for collateral from any counterparty for any net mark-to-market owed to Freddie Mac on derivative contracts not providing it in favor of its derivative counterparties. This was possible because of the Freddie Mac's AAA rating and fallacy in the government guarantee. If failed to execute the obligations, Freddie Mac could ruin the derivative market, because counterparties even would not get any collateral from it.

The Federal Law exempted GSEs from the limitation of investing more than 10 % of the banks' capital into single entity. Moreover, the Secondary Market Enhancement Act of 1984 allowed investors to hold Freddie Mac securities to the same extent they could hold U.S. Government obligations. Those regulations created wide opportunities for holding Freddie Mac's debt, and everyone accepted lower yields on GSE-issued debt and MBS having the perception of government guarantee of GSE debt. Besides, Freddie Mac was exemption from Securities Act of 1933, under which most companies issuing securities to the public had to register those activities; therefore, official disclosure standards for Freddie Mac were different, which enabled not to register the securities at the SEC. This legal framework resulted in the fact that the whole banking system was holding Freddie Mac's debt as a substantial percentage of equity. Hence, the potential failure of Freddie Mac would result in the collapse of the system.

Obviously, the government was earning political scores promising affordable house to every family. By stimulation of the economy granting subsidies for developers to the depressed areas and weakening the regulation for Freddie Mac and other mortgage institutions, the government tried to persuade the society in its legitimacy and effectiveness by popularizing the results of the housing program. Also we believe that the government was partially in charge of maintaining the myth of guarantee for Freddie Mac's debt, which created artificial confidence on the markets, kept interest rate lower than the appropriate risk level, and sustained illusion of high economic growth.