

Fannie Mae (FNM)

Company Profile

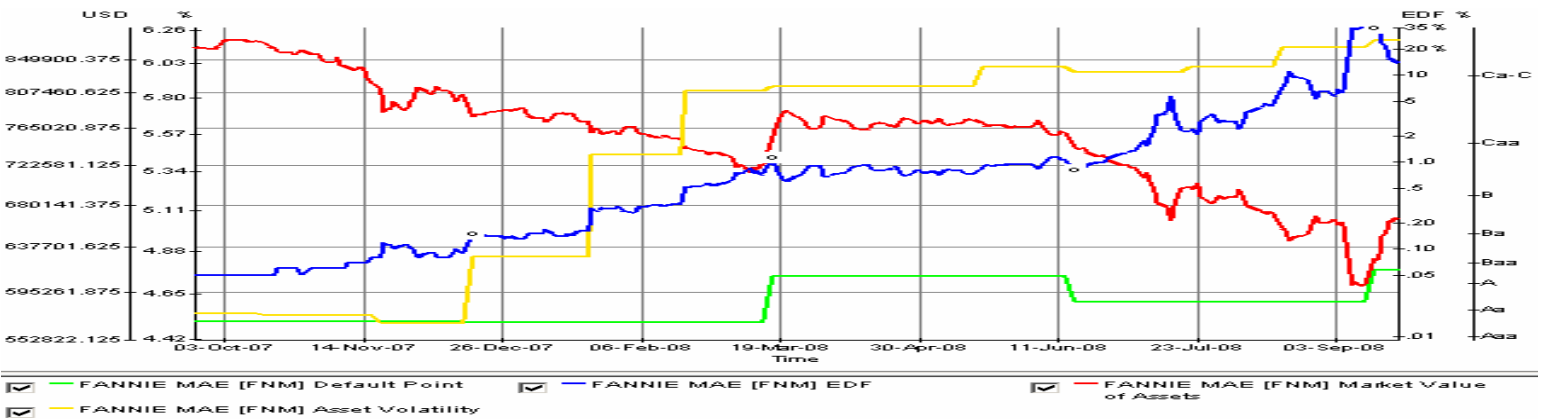
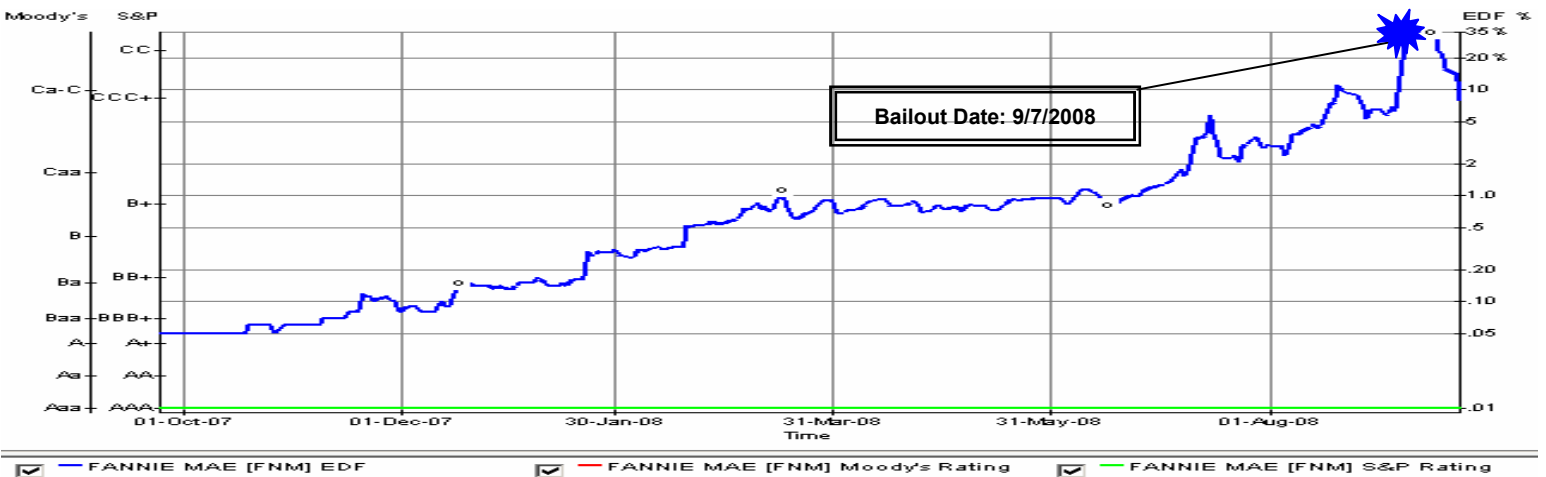
On September 7, 2008, Treasury Secretary Henry Paulson announced that the government would take control of **Fannie Mae** and Freddie Mac and replace the companies' chief executives. The Treasury would acquire \$1 billion of preferred shares in each company without providing immediate cash and had pledged to provide \$200 billions to these troubled mortgage giants as they cope with heavy losses on mortgage defaults.*

Fannie Mae provides funds to mortgage lenders through the purchase of mortgage assets, and issues and guarantees mortgage-related securities that facilitate the flow of funds into the mortgage market in the United States. It operates in three segments: Single-Family Credit Guaranty, Housing and Community Development, and Capital Markets. Fannie Mae's customers include mortgage banking companies, investment banks, savings and loan associations, savings banks, commercial banks, credit unions, community banks, insurance companies, and state and local housing finance agencies. The company was founded in 1938 and is based in Washington, the District of Columbia.

*To our knowledge, FNM has been able to fulfill all their contractual obligations. Nevertheless, they have suspended dividends on their preferred stock.

EDF™ as of September 7, 2008: 35.00%
Credit Category (not an agency rating): C

Expected Default Frequency (EDF) is the probability that a firm will default within a given time horizon. Default is defined as failure to make a scheduled payment or the initiation of bankruptcy proceedings. The main drivers of EDF credit measures are the market value of the firm (asset value), the level of its debt obligations (default point), and the volatility of firm value (asset volatility). The EDF credit measures displayed below are 1-year risk measures, although a 10-year term structure of risk is available within CreditEdge.

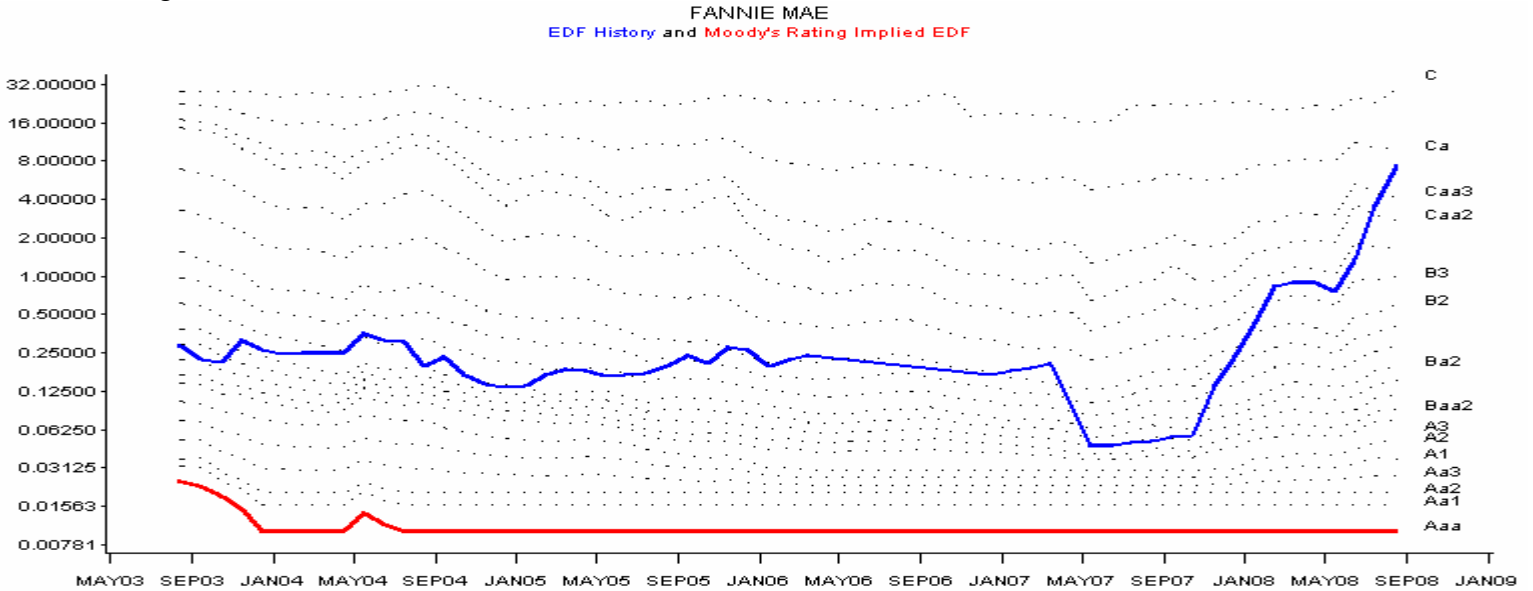


This chart shows **Fannie Mae's** EDF credit measure on the rise, reaching 35.00% when it was bailed out by the US government on September 7, 2008. In October 2007, Fannie Mae had a market value of assets at \$873 billion. As they expanded their exposure to riskier mortgage loans, especially Alt-A loans*, Fannie Mae's asset volatility jumped to 6.2% in September 2008 from 4.4% in October 2007, and their market value of assets decreased to \$605 billion in September 2008 while their default point was \$586 billion. In light of the elevated credit risk of Fannie Mae and its key role in the US mortgage market, the US government decided to take over to avoid systematic problems raised by Fannie Mae's crash.

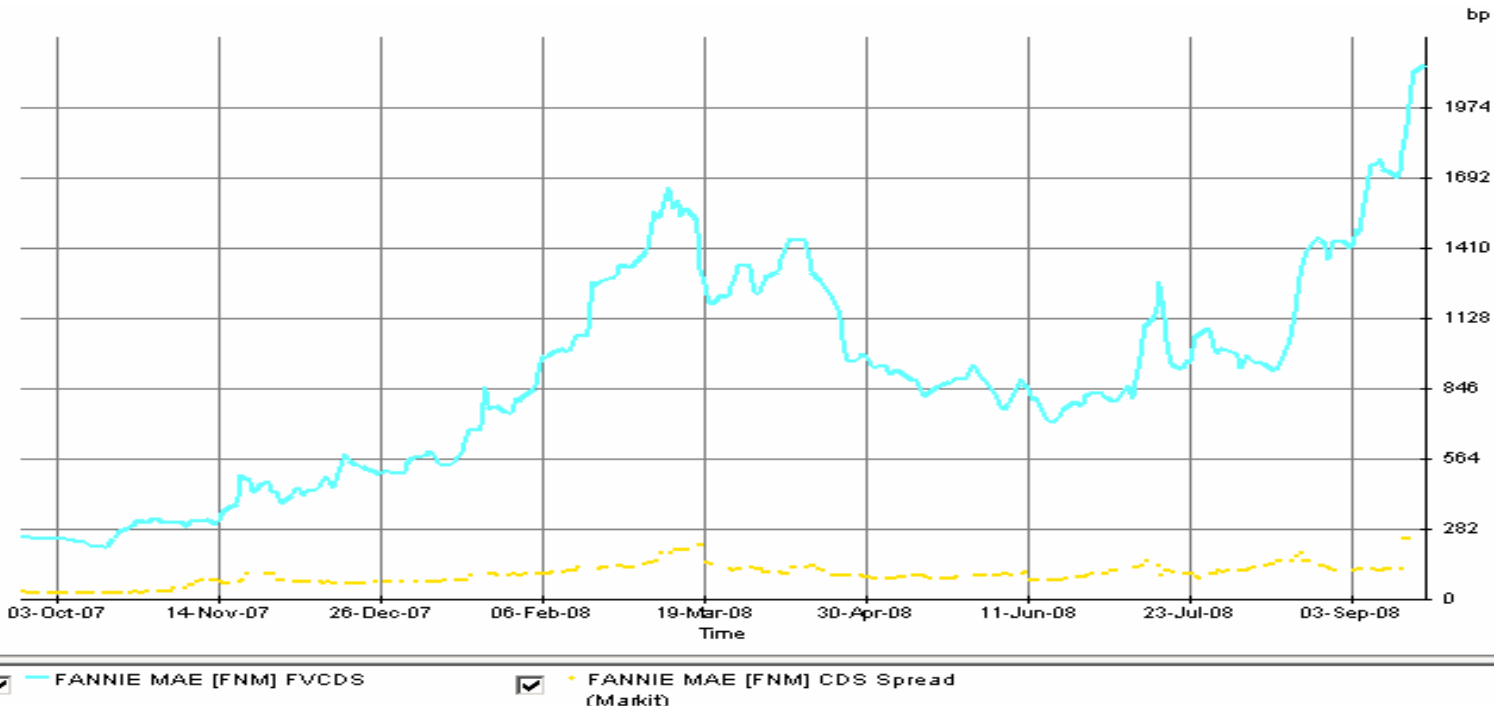
*Alt-A loans, a category between prime and subprime, include loans made with less than full documentation of borrowers' income or assets.

Generated on October 10, 2008

The next graph shows 5 year history of EDF Credit Measure along with Moody's Rating Implied EDF values and median EDF values of each rating class. This graph is based on the data from CreditEdge Plus and was internally generated. Blue line shows movement in the **EDF values**, the red line shows **Moody's Rating Implied EDF values** and dotted lines represent time series of median EDF values of each rating class.



To study the relationship between CDS spread and EDF, CreditEdge Plus provides a fair value CDS spread, which is the 5 year EDF-implied CDS spread. The market price of risk and industry average LGD information are incorporated into the fair value CDS spread. The fair value CDS spread is designed to be consistent with the actual spread within a sector on any given day.



Fannie Mae's EDF-implied Fair Value CDS spread has been higher than the observed CDS spread since October 2007 providing an earlier warning of the coming preferred stock default.

Continue to EDF Details



Generated on October 10, 2008

EDF Information as of: September 8, 2008
 Financial Statement Date: March 31, 2008
 No Reference Issue

mm/dd/yy

Define Current: 9/7/08

Define Previous: One Year

Amounts in: USD Millions (except Share Price)	Current	Previous	Amt Change	% Change
EDF	35.00%	0.05%	+3,495 bp	+69,900.00%
Credit Category A	C	A2	-15	-15
Asset Volatility B	6.14%	4.55%	+1.59%	+34.95%
Instantaneous Equity Volatility	286.80%	27.01%	+259.79%	+961.83%
Market Leverage C	97.64%	65.19%	+32.45%	+49.78%
Market Value of Assets D	600,391.812	872,775.125	-272,383.312	-31.21%
Market Capitalization	785.910	63,780.203	-62,994.293	-98.77%
Share Price	0.730	65.610	-64.880	-98.89%
Shares Outstanding	1,076.589	972.111	+104.478	+10.75%
Default Point E	586,221.625	568,956.000	+17,265.625	+3.03%
Short-Term Liabilities	368,210.219	335,618.000	+32,592.219	+9.71%
Long-Term Liabilities	436,022.781	466,676.000	-30,653.219	-6.57%
Total Adjusted Liabilities	804,233.000	802,294.000	+1,939.000	+0.24%
Other				
Common Dividends	1,365.570	1,010.995	+354.575	+35.07%
Preferred Dividends	1,288.000	524.000	+764.000	+145.80%
Dilution	1.000	1.000		

Credit Category **A**

Traditional ratings such as the ones used by the major rating agencies are currently more commonplace than default probabilities. Therefore, to help facilitate users' understanding, we translated the EDF credit measure into an equivalent credit category.

Note that this may bear no relationship to the actual agency rating. This is because Moody's KMV employs a different approach to measuring credit risk than the rating agencies. For a more detailed discussion of Moody's KMV's approach to measuring credit risk, please visit the Quick Tour on our Web site.



United States & Canada Large Financials

Asset Volatility & Market Leverage **B & C**

The two main drivers of EDF credit measures are: asset volatility, a measure of business risk, and market leverage, a measure of financial risk.

Technically, asset volatility is the standard deviation of the annual change in the market value of the assets. This volatility is expressed in percentage terms.

The higher the asset volatility, the less certain investors are about the market value of the firm, and the more likely the firm's value will fall below its default point.

Market leverage is a ratio indicating how much of the market value of the firm's assets is financed by debt. The measure is calculated as follows: default point divided by the market value of assets.

If all else is equal, the higher the asset volatility or market leverage, the higher the EDF credit measure. The asset volatility and market leverage charts in the top right of the "EDF Detail" screen help the user to understand the firm's EDF credit measure and aid in determining the relative risk, both from a business risk and financial risk perspective.

The chart depicts a meter that shows the level of risk on each of the two measures. The levels are relative values computed on a selected group of firms.

Market Value of Assets **D**

The market's view of the enterprise value of the firm as determined by the firm's equity value, equity volatility, and liability structure.

Because the market value of assets is not directly observable, Moody's KMV employs a proprietary option-theoretic model to compute this value, which treats the firm's equity value as a call option on the firm's underlying assets.

The option theoretic approach enables Moody's KMV to determine the market value of a firm's assets from knowing only the market characteristics of its equity value and the book value of its liabilities.

Default Point **E**

The liabilities that matter in case of default. If the market value of assets falls below this value, it is assumed that the firm will be unable to sell assets or raise additional capital to pay its debts. In general, a firm's default point is a value close to its short-term liabilities plus half of long-term liabilities.

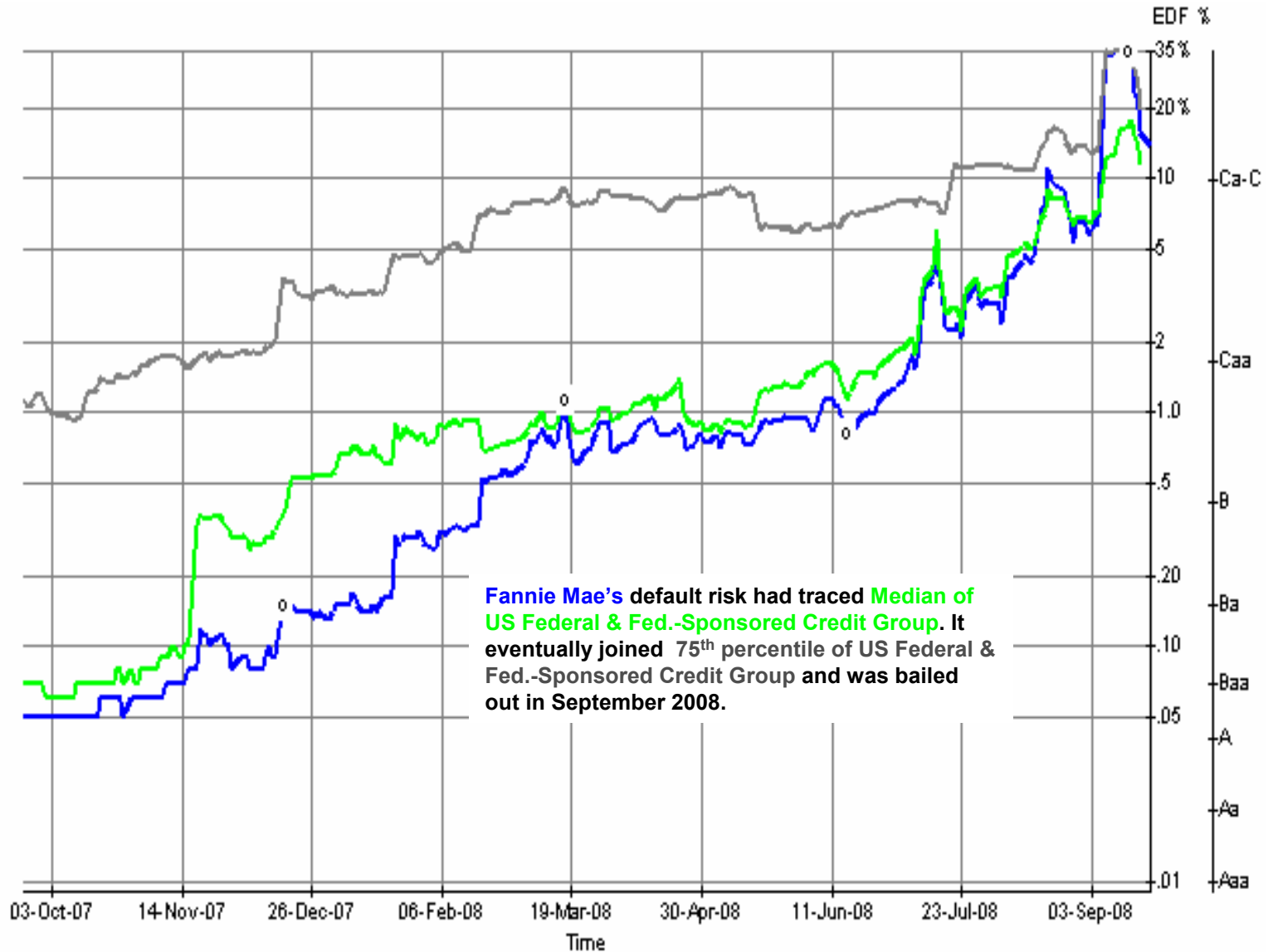


Relative Analysis

The relative analysis feature allows users to chart EDF, fundamental data, and bond values for a selected company or group relative to other companies and/or groups. Users may manually select their own list of peer companies or groups for comparison, or view a Moody's KMV predefined peer list which is based on an automated algorithm. To determine peers for each company:

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FANNIE MAE [FNM] EDF

US FEDERAL & FED.-SPONSORED CREDIT GROUP [USA6111] EDF - Median

US FEDERAL & FED.-SPONSORED CREDIT GROUP [USA6111] EDF - 75th Percentile

Continue to Peer Group List



Generated on October 10, 2008

Peer Group List (No. of Companies: 6)

Company Name	Symbol	EDF 1-Year (%)
FANNIE MAE	FNM	35
FEDERAL HOME LOAN MORTG CORP	FRE	34.25
CENTERLINE HOLDING CO	CHC	7.18
FEDERAL AGRICULTURE MTG CP	AGM	7
STUDENT LOAN CORP	STU	0.78
SLM CORP	SLM	0.66

Continue to Another Feature Public Company

Generated on October 10, 2008

Freddie Mac (FRE)

Company Profile

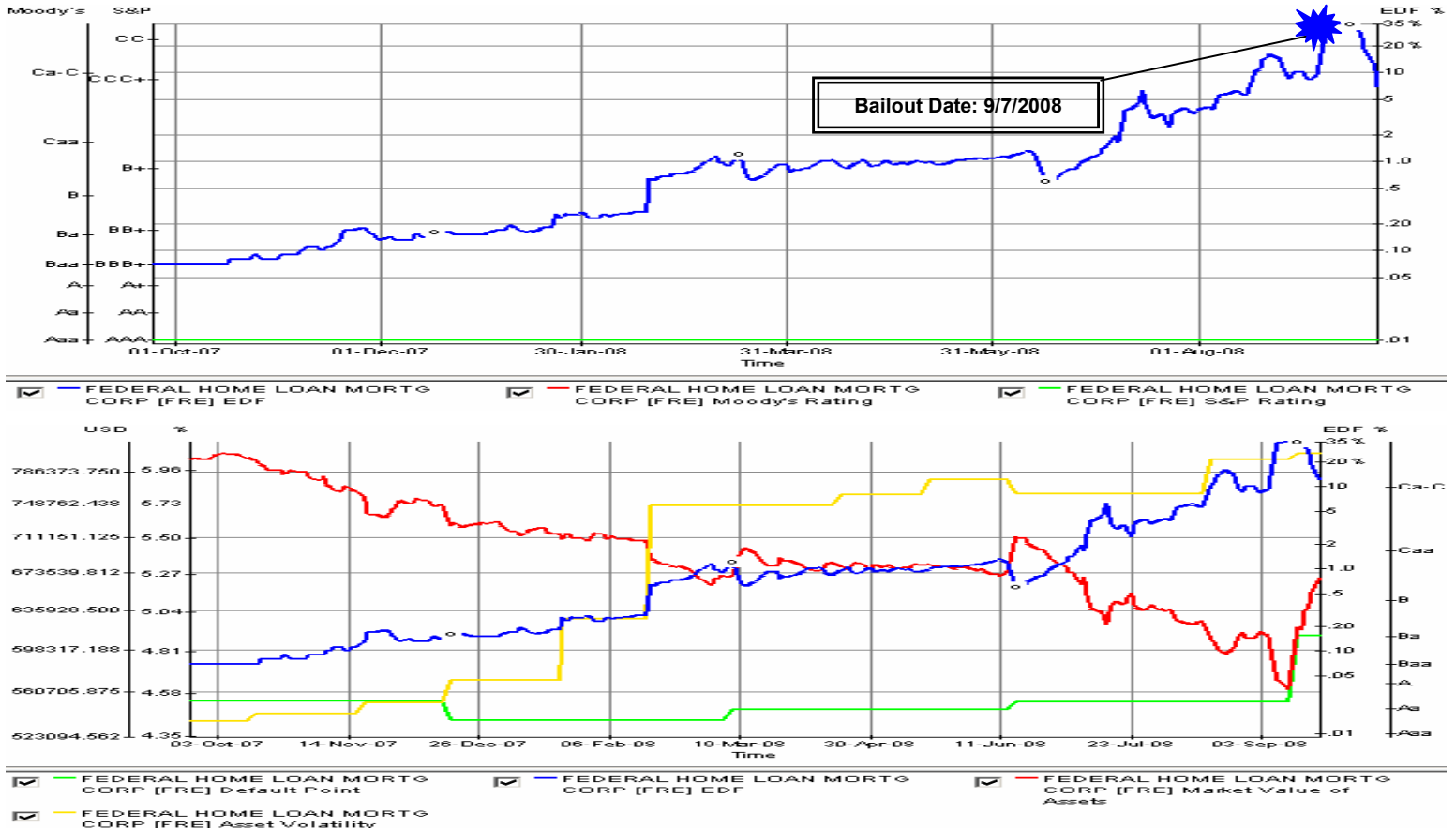
On September 7, 2008, Treasury Secretary Henry Paulson announced that the government would take control of Fannie Mae and **Freddie Mac** and replace the companies' chief executives. The Treasury would acquire \$1 billion of preferred shares in each company without providing immediate cash and had pledged to provide \$200 billions to these troubled mortgage giants as they cope with heavy losses on mortgage defaults.*

Freddie Mac engages in mortgage purchasing, credit guarantee, and portfolio investment activities in the United States. It purchases single-family and multi-family residential mortgages, and mortgage-related securities from lenders in the primary mortgage market that originate mortgages for homebuyers. The company also buys mortgage loans and mortgage-related securities, and issues guaranteed mortgage-related securities in the secondary market. In addition, Freddie Mac guarantees the payment of principal and interest on mortgage-related securities. The company was founded in 1970 and is headquartered in McLean, Virginia.

* To our knowledge, FRE has been able to fulfill all their contractual obligations. Nevertheless, they have suspended dividends on their preferred stock.

EDF™ as of September 7, 2008: 34.25%
Credit Category (not an agency rating): Ca

Expected Default Frequency (EDF) is the probability that a firm will default within a given time horizon. Default is defined as failure to make a scheduled payment or the initiation of bankruptcy proceedings. The main drivers of EDF credit measures are the market value of the firm (asset value), the level of its debt obligations (default point), and the volatility of firm value (asset volatility). The EDF credit measures displayed below are 1-year risk measures, although a 10-year term structure of risk is available within CreditEdge.

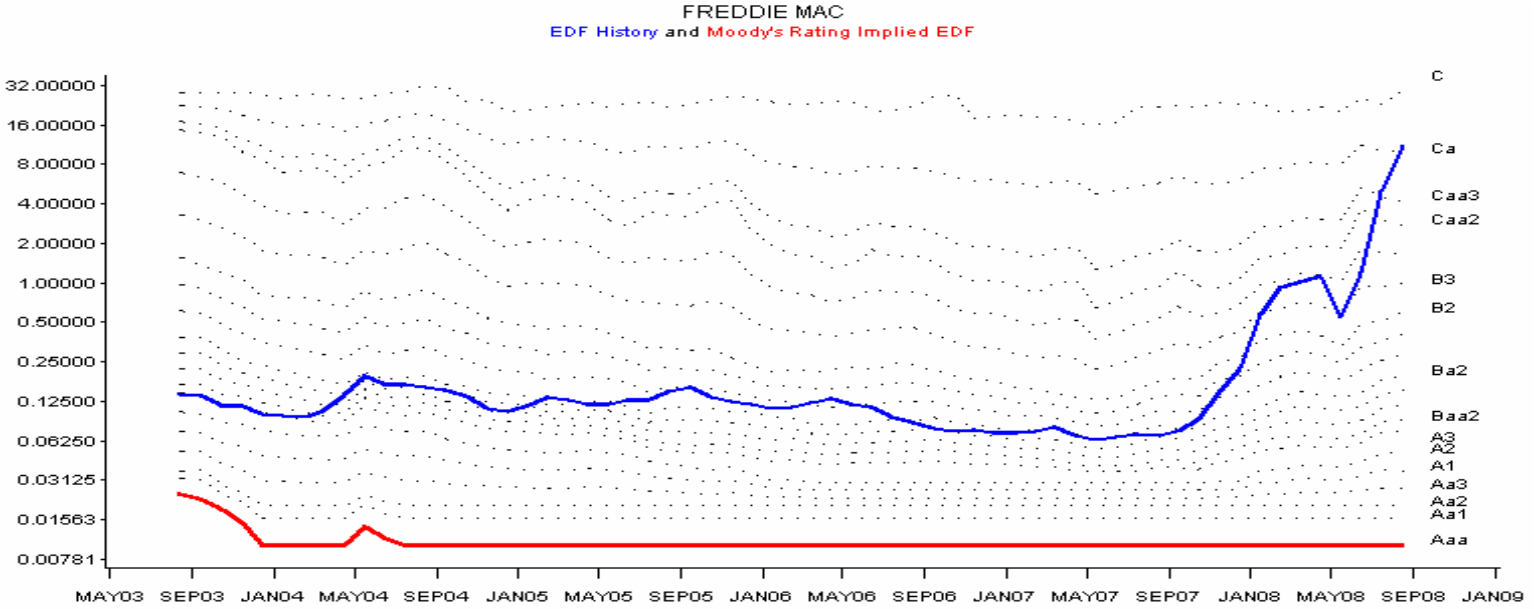


This chart shows **Freddie Mac's** EDF credit measure on the rise, reaching 34.25% when it was bailed out by the US government on September 7, 2008. During the course of the past year, its equity value had declined from \$39 billion to \$5 billion, and the implied market value of assets declined from \$800 billion to \$630 billion. Given the relatively stable total liabilities and the default point, around \$780 billion and \$550 billion respectively, this indicates an increase in the market leverage. Meanwhile, as Freddie Mac expanded its exposure to riskier mortgage loans, especially Alt-A loans*, and the housing market subsequently weakened, its asset volatility jumped to 6.1% in September 2008 from 4.4% in October 2007. In light of the elevated credit risk of Freddie Mac and its key role in the US mortgage market, the US government decided to take over to avoid systematic problems raised by Freddie Mac's crash.

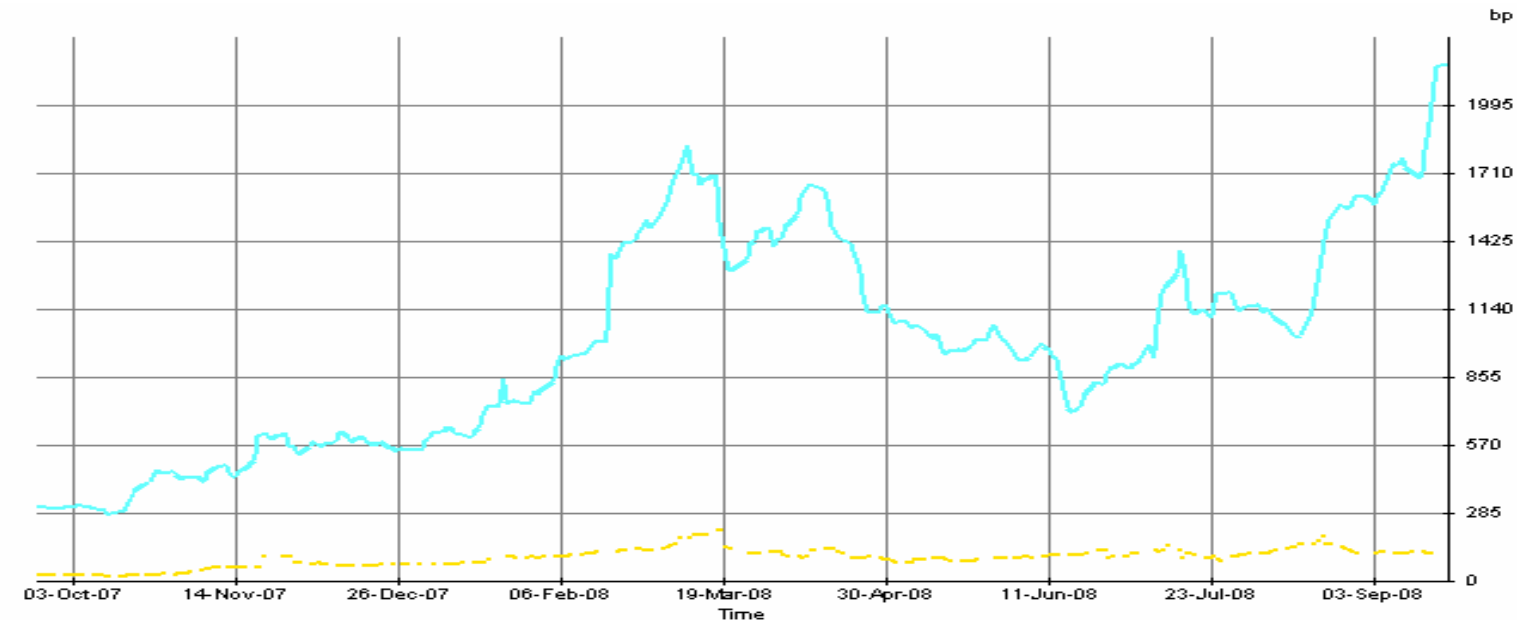
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FEDERAL HOME LOAN MORTG CORP [FRE] FVCDS FEDERAL HOME LOAN MORTG CORP [FRE] CDS Spread (Market)

Freddie Mac's EDF-implied Fair Value CDS spread has been higher than the observed CDS spread since October 2007 providing an earlier warning of the imminent asset devaluation from the equity market.

Continue to EDF Details



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mm/dd/yy

Define Current: 9/7/08

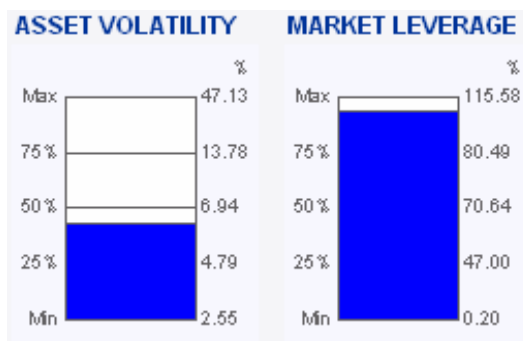
Define Previous: One Year

Amounts in: USD Millions (except Share Price)	Current	Previous	Amt Change	% Change
EDF	34.25%	0.07%	+3,418 bp	+48,828.57%
Credit Category A	Ca	Baa1	-12	-12
Asset Volatility B	6.04%	4.43%	+1.61%	+36.34%
Instantaneous Equity Volatility	223.68%	19.67%	+204.01%	+1,037.16%
Market Leverage C	96.86%	68.54%	+28.32%	+41.32%
Market Value of Assets D	570,143.875	806,349.625	-236,205.750	-29.29%
Market Capitalization	569.370	40,758.344	-40,188.973	-98.60%
Share Price	0.880	61.610	-60.730	-98.57%
Shares Outstanding	647.011	661.554	-14.543	-2.20%
Default Point E	552,220.500	552,679.375	-458.875	-0.08%
Short-Term Liabilities	317,606.000	311,680.000	+5,926.000	+1.90%
Long-Term Liabilities	469,229.000	477,862.000	-8,633.000	-1.81%
Total Adjusted Liabilities	786,835.000	789,542.000	-2,707.000	-0.34%
Other				
Common Dividends	646.722	1,323.108	-676.386	-51.12%
Preferred Dividends	1,088.000	380.000	+708.000	+186.32%
Dilution	1.009	1.030	-0.021	-2.04%

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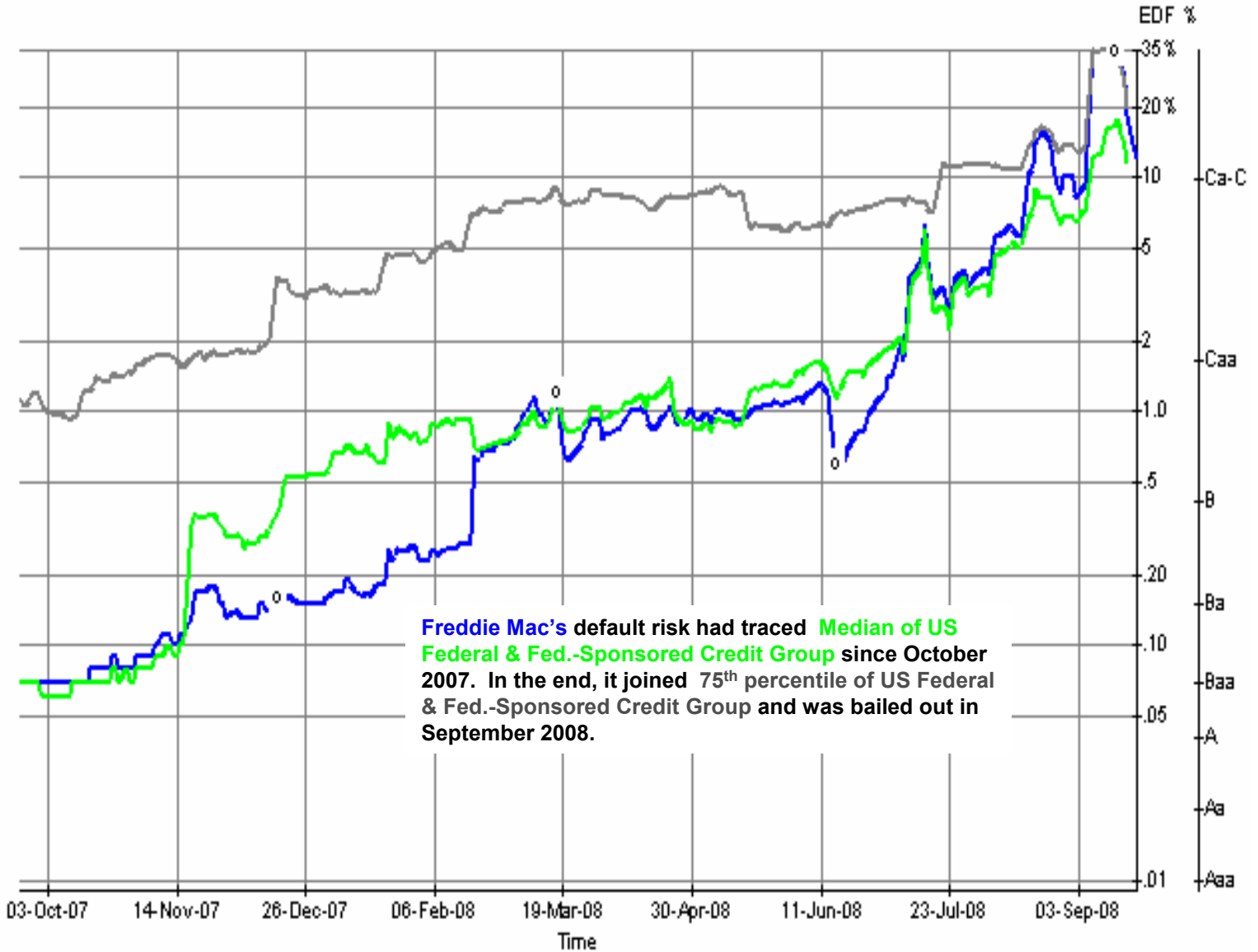
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Thank you for your interest in CreditEdge and RiskCalc, the revolutionary credit risk management solutions provided by MKMV. We look forward to the opportunity of providing you with more information. Please visit www.mkmv.com to sign up for an online demonstration. A Support Team Member will respond to you shortly.