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DEFAULT CASE STUDY

Residential Capital Llc

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About

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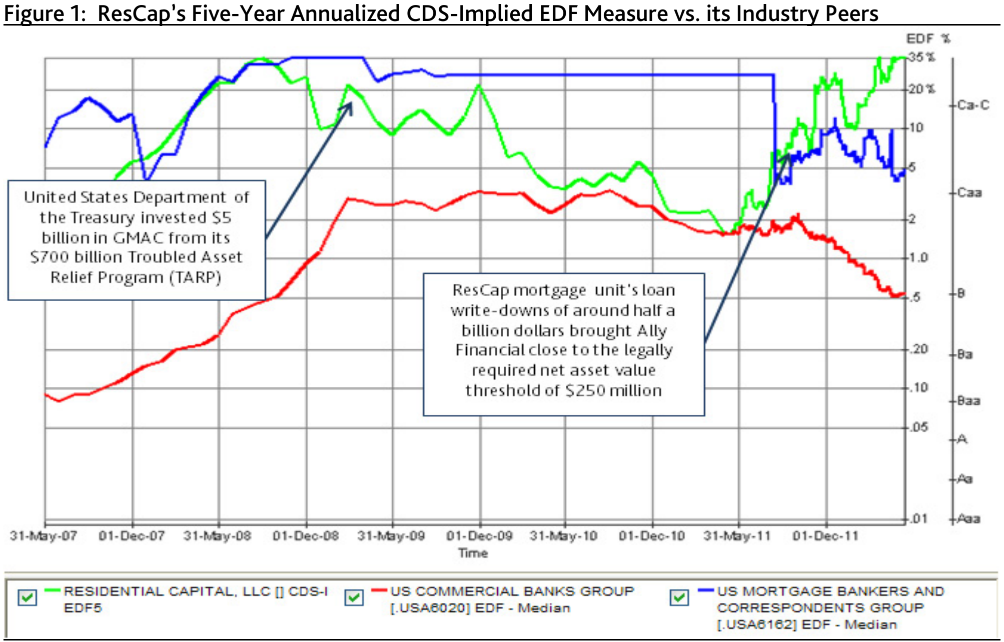
Summary

- Residential Capital Llc (ResCap) was once one of the largest subprime mortgage originators of the lending unit of Ally Financial Inc., formerly known as GMAC. On May 14, 2012, ResCap filed for bankruptcy protection and listed assets of USD 15.7 billion and debt of USD 15.3 billion. ResCap is one of the last subprime mortgage lenders of the early 2000s to file for bankruptcy.
- ResCap's five-year CDS-implied EDF[TM] was high and rising since before the global financial crisis. After 2007, when the subprime crisis hit, its EDF measure began to rise sharply. In December 2008, the United States Treasury invested USD 5 billion in Ally Financial from its USD 700 billion Troubled Asset Relief Program (TARP). Since that time, through multiple bailouts, Ally Financial received USD 17 billion in financial assistance.
- Over the last three years the company went through several restructurings with USD 15 billion in mortgage-related losses and a 75 percent reduction in its workforce. The heightened level of its CDS-implied EDF measure reflects the company's inability to repay debt taken on to finance the issuance of home mortgages and continue its operations.

Figure 1: ResCap's Five-Year Annualized CDS-Implied EDF Measure vs. its Industry Peers



High and Rising Default Risk

The five-year CDS-implied Expected Default Frequency (EDF) measure for Residential Capital Llc has signaled a high level of default risk since at least 2007, and the pace of deterioration in its EDF metric began to accelerate over the last year, following the firm's inability to pay off its USD 15.3 billion debt. The company, whose parent Ally Financial is 74 percent owned by the US Treasury filed for bankruptcy protection on May 14, 2012 making it the largest filing in 2012, based on its liabilities. ResCap will be sold to rival residential mortgage loan servicer Nationstar Mortgage Holdings Inc., and will continue to originate home loans and service its existing consumer mortgages.

ResCap's CDS-implied EDF measure provided a timely early warning signal of financial distress. ResCap's CDS-implied EDF measure persisted at a very high level following the global financial crisis, reflecting the relatively high credit risk of both itself and its industry sector. One month prior to its bankruptcy filing the firm's CDS-implied EDF was already at 35%, level that historically indicated that the company is in extreme distress and is likely to experience a credit event. As figure 1 on the cover of this report shows, the annualized five-year CDS-implied EDF measure underperformed the median EDF for its industry peer group, the US Commercial Banks Group. At the time of the bankruptcy filing on May 14, 2012, ResCap's CDS-implied EDF measure was 66 times greater than the median EDF measure for its industry sector.

In the year leading up to its bankruptcy, ResCap's CDS-implied EDF measure increased by 2,000%, from 1.61% in May 2011 to 35% in May 2012. Furthermore, the increase in ResCap's CDS-implied EDF measure was in sharp contrast to the changes in the median EDF level for its peer industry group, whose EDF metric declined by 67% over the same period. Moody's Analytics' research has shown that firms that underperform their industry sectors, regardless of the level of their EDF measure, tend to experience higher default rates.

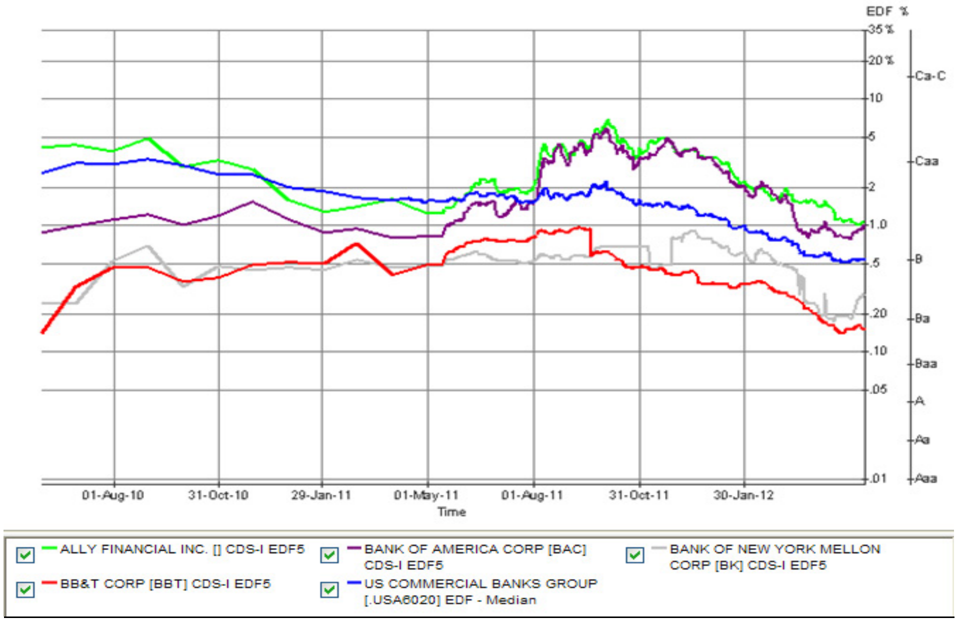
Based on data from 1992 to 2011, we calculated one-year default rates conditioned on a firm's EDF level and on the relative EDF change versus its sector. Relative performance is measured by the difference in the change in a firm's EDF measure and the change in its industry median EDF measure. Figure 2 shows the results. For ease of presentation, we bucketed EDF levels and change versus sector into ten equally sized categories (deciles). Firms whose EDF measures underperform their industry sectors (categories 6 through 10) experience higher default rates, regardless of EDF level. In Figure 2, this is shown by the fact that default rates increase from right to left. Taken with the data from Figure 1, the table suggests that the trend of ResCap's EDF metric versus its industry group showed relatively heightened risk of default in both absolute and relative terms.

Figure 2: Average Realized Default Rates by EDF Level and Relative Performance vs. Industry Sector

		EDF Change Relative to Industry Peer Group Change									
		1	2	3	4	5	6	7	8	9	10	ALL
Firm EDF Level	1	0.05%	0.03%	0.02%	0.00%	0.00%	0.01%	0.03%	0.00%	0.00%	0.00%	0.02%
	2	0.10%	0.05%	0.06%	0.06%	0.00%	0.00%	0.02%	0.07%	0.11%	0.27%	0.05%
	3	0.10%	0.06%	0.01%	0.03%	0.01%	0.03%	0.07%	0.06%	0.03%	0.18%	0.05%
	4	0.28%	0.12%	0.17%	0.15%	0.09%	0.10%	0.08%	0.09%	0.17%	0.30%	0.15%
	5	0.32%	0.23%	0.24%	0.32%	0.22%	0.24%	0.21%	0.27%	0.22%	0.46%	0.27%
	6	0.62%	0.44%	0.45%	0.34%	0.44%	0.56%	0.44%	0.72%	0.51%	0.97%	0.55%
	7	0.71%	0.56%	0.66%	0.80%	0.64%	0.72%	0.73%	1.06%	1.18%	1.63%	0.89%
	8	1.01%	1.01%	1.19%	1.25%	1.27%	1.44%	1.58%	1.65%	2.05%	3.10%	1.68%
	9	3.14%	2.22%	4.83%	5.16%	5.25%	4.34%	4.87%	5.75%	6.37%	8.39%	5.60%
	10	6.43%	4.68%	5.76%	7.70%	7.70%	6.96%	7.67%	9.31%	9.99%	13.70%	8.94%
	All	0.66%	0.63%	1.08%	1.73%	1.73%	1.83%	2.24%	2.92%	3.13%	5.96%	2.16%

Residential Capital's bankruptcy filing will separate the money-losing firm from Ally's auto loan and banking business, allowing Ally to grow and speed up its government bailout repayment of the remaining USD 12 billion. The US government is hoping to get the money back through Ally's IPO or perhaps the sale of its remaining businesses. The current level of Ally Financial Inc's CDS-implied EDF is 1.09%, which is reltively close to its peers like Bank of America Corp. and Bank of New York Mellon, with CDS-implied EDF measures of 1.00% and 0.29% respectively (see Figure 3). The rise in ResCap's CDS-implied EDF prior to its default stands in contrast to the decline in parent Ally's CDS-implied EDF measure, as well as the decline in the median CDS-implied EDF measure of its industry peer group, US Commercial Banks. While CDS-implied EDF metrics for US banks has generally improved since 2011, ResCap showed persistently high risk of default.

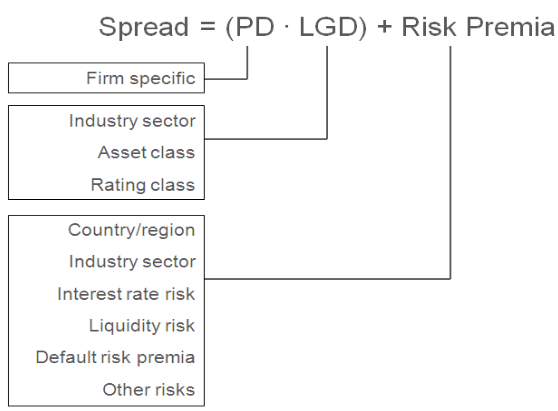
Figure 3: Ally Financial Inc's Five-Year Annualized CDS-Implied EDF vs. its Industry Peers



CDS-Implied EDFs Isolate Default Probabilities from CDS Spreads

Credit ratings, bond, and CDS spreads are useful metrics for rank ordering credit risk, but they are imprecise measures of an entity's risk of default. Ratings' through-the-cycle orientation smoothes over short-run variations in default risk. As a market clearing price, credit spreads, whether they come from the bond or credit default swaps market, reflect fair compensation for risk taking as well as other premia that account for investors' risk aversion. These other risk premia can sometimes account for a substantial share of an entity's credit spread, creating a large wedge between the observed spread and the stand-alone measure credit risk we require.

As the stylized equation below shows, a credit spread is determined by many factors beyond an entity's expected credit loss (the product of probability of default and loss given default). Many of these other factors relate to market-wide risks, such as country, industry, and interest rate risks. For firms with low expected default probabilities, such as entities with high investment grade credit ratings, these other risk factors can swamp the firm-specific PD signal contained in the spread. For example, the average five-year default rate for Aaa-rated entities is about 4 bp. However, Aaa-rated entities currently trade at a CDS spread of about 40 bp. Even assuming a LGD rate of 100%, the other risks priced into the spread represent a large portion.



Moody's Analytics' CDS-Implied EDF model framework works by calibrating values for loss given default and these other risk premia. However, rather than trying to separately estimate all the distinct risk premia, we estimate them collectively as a single quantity – which we term the "market price of risk" – so that the risk premium is the residual value between observed CDS spreads and our estimated actuarially fair spreads (captured by PD and LGD). In the CDS-Implied EDF model, LGD values are calibrated by industry sector and geographical region. The market price of risk is calibrated by geographical region and rating class (investment grade and high yield). Having calibrated the values for LGD and the market price of risk, it is straightforward to calculate a probability of default given an observed CDS spread.[1]

Investors widely use both bond and CDS spreads as proxies for early warning of credit risk. However from the beginning of 2012, as ResCap's CDS-implied EDF measure was increasing, its bond spread began to decrease. As shown in Figure 4 the bond spread for the firm has decreased by 65% from its January 2012 value of 3,476bp to its 1,223bp in May 2012, while the CDS-implied EDF increased by 47% over the same period of time. For a firm at risk of imminent default, the drop in ResCap's bond OAS is unexpected. We speculate that the OAS was responding to expectations of relatively high recovery values on ResCap's bonds. The bonds shown in Figure 4 (the 9.625's of 2015) were expected to receive 105 cents on the dollar recovery value in bankruptcy.[2] This example reinfornces the lesson that credit spreads are imperfect indicators of default risk.

Figure 4: ResCap's CDS-implied EDF vs. Bond OAS

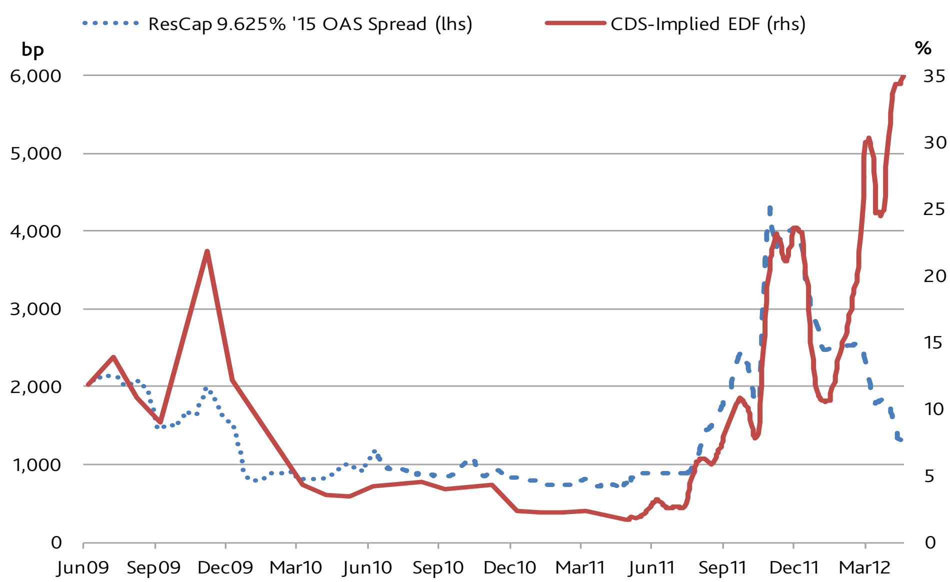
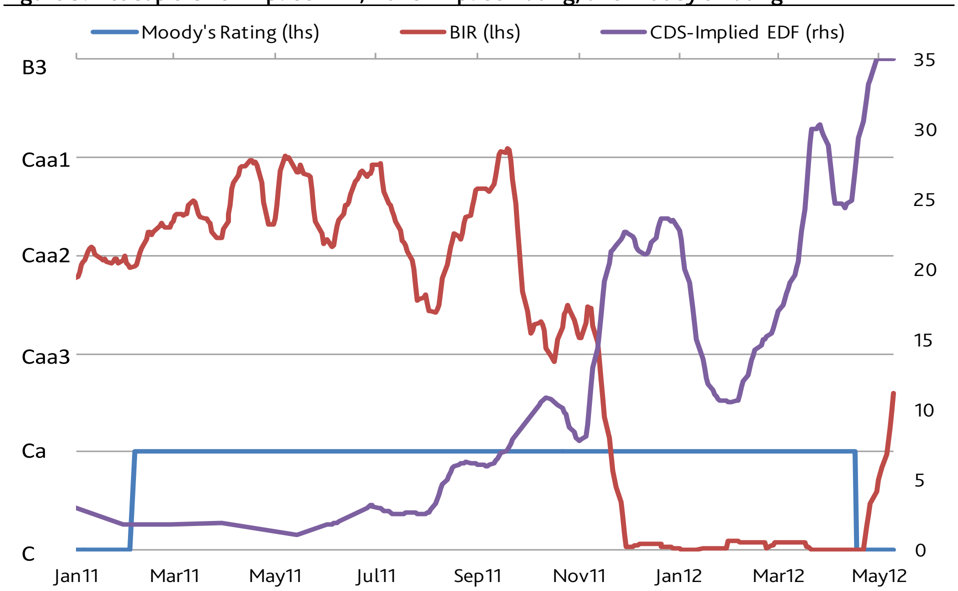


Figure 5: ResCap's CDS-implied EDF, Bond-implied Rating, and Moody's Rating



1 Complete details of the CDS-implied EDF model estimation process can be found in the methodology document "CDS-implied EDF™ Credit Measures and Fair-value Spreads," available on www.moodysanalytics.com.

2 "ResCap Junior Notes Projected to Get 105 Cents on the Dollar," Bloomberg News, May 15, 2012.

Figure 5 shows how credit risk signals for Residential Capital Llc changed from 2007 up to its bankruptcy. In this graph, the bond spread has been converted into its Moody's implied rating. We also include the senior unsecured ratings from Moody's Investors Service for comparison. The graph also shows the performance of the CDS-implied EDF metric. By all these credit risk measures, ResCap was a high-risk name. Moody's Investors Sevice downgraded ResCap a month prior to its default to a C rating, which reflected ResCap's weak portfolio and earnings performance, high leverage and uncertain support for Ally Financial Inc. Relative to the other risk measures, the CDS-implied EDF showed the progression of credit risk from high to extremely high.

Summary

Residential Capital Llc is one of the last subprime mortgage lenders of the early 2000s to file Chapter 11. The heightened level of its CDS-implied EDF measure reflects the company's inability to repay debt taken on to finance the issuance of home mortgages and continue its operations in the wake of the global financial crisis. The company reported a net loss of USD 845 million in 2011 and relied on the support from its parent, Ally Financial Inc. In the year leading up to its bankruptcy, ResCap's CDS-implied EDF measure increased from 1.61% in May 2011 to 35% in May 2012. Furthermore, the increase in ResCap's CDS-implied EDF measure was in sharp contrast to the changes in the median EDF level for its industry peer group, whose EDF metric declined over the same period. Furthermore, the CDS-implied EDF was at 35% one month prior to its bankruptcy filing, level that historically indicates a company in extreme distress and likely to experience a credit event. Nationstar Mortgage Holdings, which is a leading residential mortgage loan servicer majorly owned by Fortress Investment Group, announced its purchase of ResCap's mortgage servicing and related assets for about USD 2.4 billion. This purchase will allow ResCap continue to originate home loans and service its existing consumer mortgages.

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