MOODY'S ANALYTICS

EDF™ CASE STUDY

Peugeot S.A. [UG]

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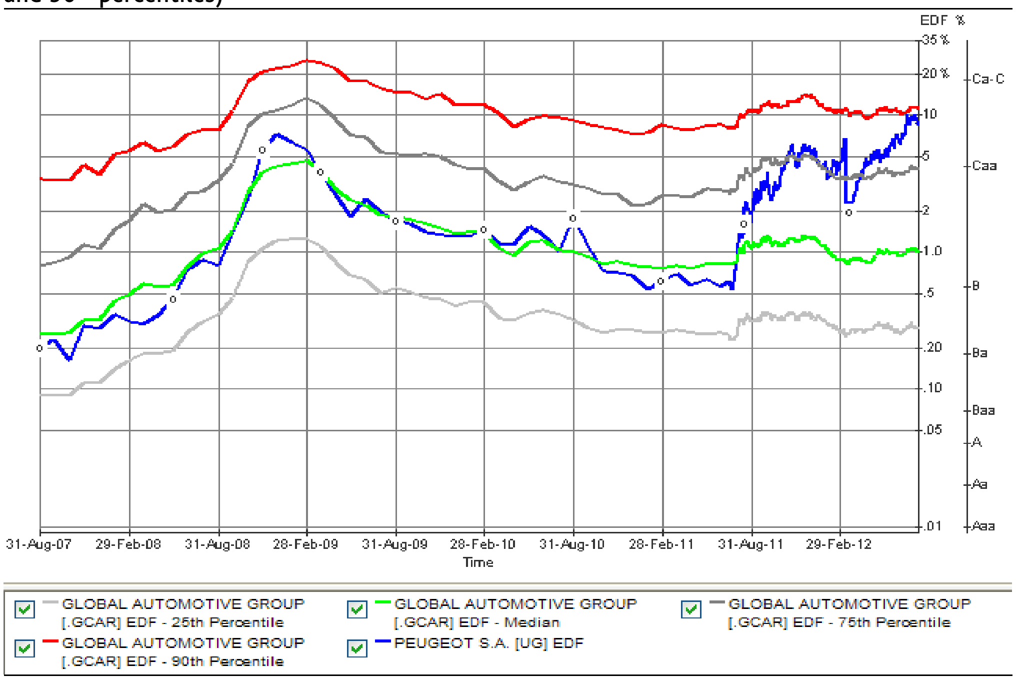
Peugeot S.A.'s EDF™ (Expected Default Frequency) credit metrics have deteriorated dramatically over the past 12 months.[1] The company's one-year EDF measure, for example, increased from 0.6% in July 2011 to 8.57% today. Until a year ago Peugeot's EDF measure was tracking the median for global automotive companies; now it is nearly in the tenth riskiest percentile (Figure 1). The recent level of Peugeot's EDF measure maps to a Caa2 on the Moody's Investors Service rating scale, which is deep in speculative grade territory. Peugeot's declining credit quality is due to increases in both the company's business risk and its financial risk, which are reflected in the respective drivers of the public-firm EDF measure: asset volatility and market leverage.

Figure 1. One-year EDF™ measure of Peugeot and of global automotive industry (25th, 50th, 75th, and 90th percentiles)

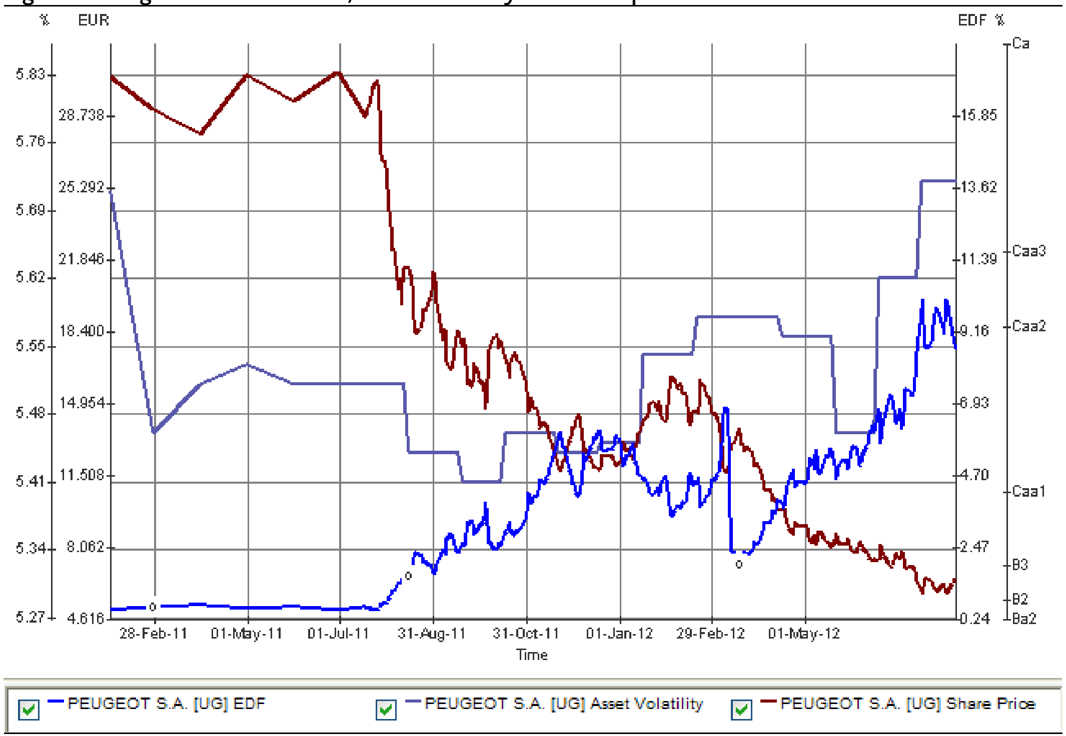


[1] A firm's EDF measure is derived from its capital structure and the trading level and volatility of its equity. EDF-implied ratings are EDF credit measures mapped to the Moody's Investors Service rating scale. For further details, please see Zhao Sun et al., "Public Firm Expected Default Frequency(EDF™) Credit Measures: Methodology, Performance, and Model Extensions", Moody's Analytics, June 2012

Business Risk

Peugeot's increase in business risk, which is evident from a decrease in its share price and an increase in its asset volatility (Figure 2), comes from several factors. Demand for automobiles in Europe is currently depressed, due to the Continent's economic slowdown and sovereign debt crisis. Peugeot suffers the effects disproportionately, as its revenues are less diversified geographically and by price points than those of some of its competitors — Peugeot's core automotive markets are in France, Spain and Italy. As a result, the company is currently operating well below its break-even capacity level, and is incurring a large cash burn.

Figure 2. Peugeot's EDF measure, asset volatility and share price



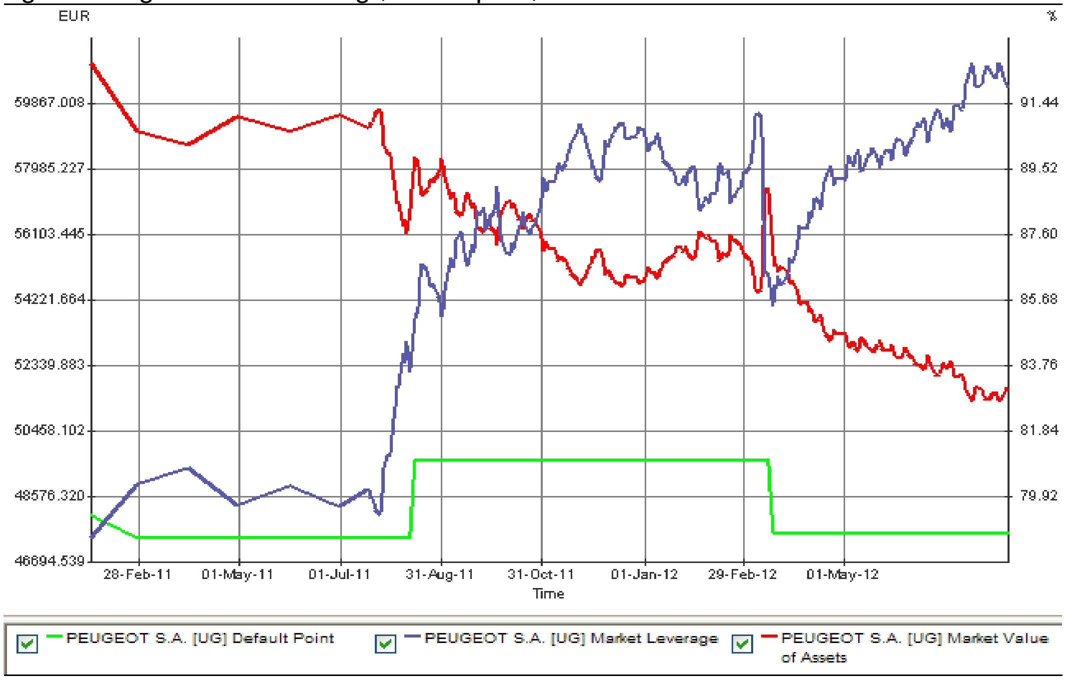
Peugeot recently announced poor financial results for the first half of this year, including negative automotive sales growth of -10.5%, negative recurring automotive operating income of -€662 million, and negative adjusted free cash flow of -€449 million. To cope with these challenges, Peugeot has announced a restructuring plan. However, regulatory restrictions make it difficult to close factories and lay off redundant employees. Arguably, the company's financial prospects might turn around once the European debt crisis is resolved and market demand begins to grow again. However, there are few signs of that occurring, and investors are clearly concerned that when it does it may be too late late for Peugeot to be able to service its debt in full and on time.

In March, Moody's Investors Service downgraded Peugeot's senior unsecured rating from Baa3 (investment grade) to Ba1 (speculative grade), noting a reported negative free cash flow that exceeded -€1.6 billion in 2011, and a substantial increase in Peugeot's net debt. On July 26, Moody's downgraded the company another notch, from Ba1 to Ba2, due in part to a monthly cash burn of approximately €200 million and Moody's projection that Peugeot is unlikely to generate break-even operating cash flow until late 2014, even in the event of a successful implementation of its reorganization plan. The company remains under review for further downgrade.

Financial Risk

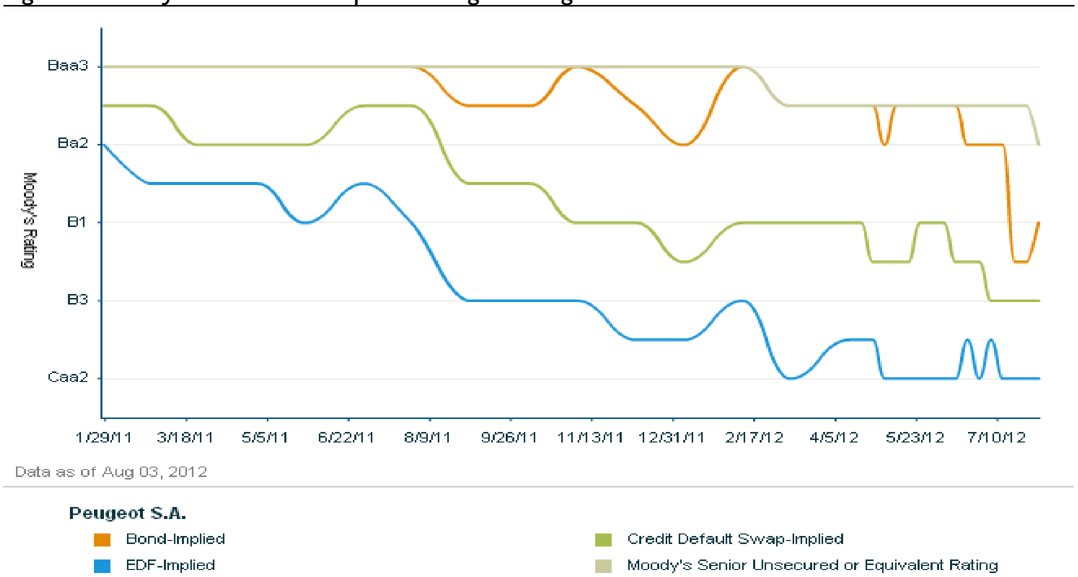
A company's financial risk is measured in the EDF model by its market leverage, which is calculated as the ratio of the company's default point and the market value of its assets. As can be seen in Figure 3, Peugeot's default point actually improved slightly in recent months. The company's net debt as of June 30 was €2.4 billion, down from €3.4 billion as of year-end 2011. This is not yet evident in Figure 3, due to customary reporting lags. What *is* evident in Figure 3 is the positive impact of an equity infusion in the middle of March that helped increase Peugeot's market value of assets and lower its market leverage and EDF measure. However, as is also clearly visible, the positive impact of the equity infusion proved to be very short-lived, as it was outweighed by the impact of the declining stock price.

Figure 3. Peugeot's market leverage, default point, and market value of assets



As can be seen in Figure 4, which maps Peugeot's EDF measure to the Moody's rating scale, Peugeot's EDF measure currently indicates a higher degree of risk than some of the company's other market-based risk signals. We have found this is a typical pattern for cyclical companies during an economic downturn. Peugeot's survival likely depends on the duration of the European sovereign debt crisis and the Continent's economic slowdown. As of yet, there are ominously few reasons for optimism in that regard.

Figure 4. Moody's and Market-Implied Ratings — Peugeot S.A.



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