

## Case Study: Assessing The Credit Health Of U.K. Health Care Companies

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Solutions Exchange is developed by S&P Capital IQ's Solutions Architects, a separate and independent team at Standard & Poor's. The objective of this analysis is to gain greater insight into specific events and trends in the market using S&P Capital IQ data and analytics solutions.

Insurers, companies, and banks have a strong need to understand the performance of the companies with whom they do business. This can be in the form of making a lending or underwriting decision, selecting a supplier, selling on credit, or even considering companies in which to invest. The challenge of assessing a company's credit is greater when there is less readily available public information.

- Looking at companies within the U.K. health care sector with limited public information, we built an analysis to understand how companies perform relative to each other.
- By looking at client data and cash conversion cycles, we found companies that are likely to outperform their peers in the future.
- We also looked at how the probability of default can bridge stock market performance with trends in the credit profile of a company.

### Building A Case For Relative Analysis

Using the S&P Capital IQ "Company Screening" tool, we screened for unrated U.K. health care companies that equity analysts do not follow (see figure 1). The screen yielded 42 companies.

## Figure 1: Company Screening

Company Screening Screening Results > Clients and Supplier

Screening Settings Save Screen Save as New Screen Create Activity Add to Binder 0 Items

View Criteria Customize Display Columns

Hide Criteria Return to Screen Builder Save Screen Save as New Screen

Reorder

1	Geographic Locations: United Kingdom (Primary)	169504	Edit	X	Options
2	Company Type: Public Company	2074	Edit	X	Options
3	No of Analysts (Latest): is less than 1	716	Edit	X	Options
4	Industry Classifications: Healthcare (Primary)	42	Edit	X	Options

**Source: S&P Capital IQ Screener 3<sup>rd</sup> February 2012. This is a partial view of the screenshot.**

We first screened for all companies located in the U.K. (169,504 companies). We then focused on public companies (2,074) and then companies without equity analyst coverage (716). We then screened by industry classification for pharmaceutical, biotechnology, and life sciences companies (42). Finally, we narrowed our results by searching for companies with four or more customers (as reported by S&P Capital IQ), which ultimately resulted in 17 companies. (Note: The initial search resulted in 20 companies, but three of those companies--DXS International PLC, e-Therapeutics PLC, and Sareum Holding PLC were excluded from our search because they were not available in the Credit Health Panel due to specific factors.)

We used S&P Capital IQ's Credit Health Panel (CHP) framework of 24 financial metrics to rank the companies in our analysis (see figure 2). These metrics are divided into three sets of data, covering the operational, solvency, and liquidity aspects of the companies in the group. Users can customize groups, which can comprise up to 100 different names.

**Figure 2: Peer Group of the 17 UK Health Care Companies on CHP**

UK Health Care Customers | Total Companies: 17

1 Top 2 Above Average 3 Below Average 4 Bottom ▲/▼ Score Change

Company Name	Credit Health Panel Company Scores			
	Overall	Operational	Solvency	Liquidity
Asterand PLC	4	2	4	4
Avia Health Informatics Public Limited Company	4	4	3	4
EDEN RESEARCH PLC ⓘ	4	3	4	4
Healthcare Locums PLC	4	3	2	4
Proteome Sciences PLC	4	4	4	3
Cyprotex PLC	3	1	1	3
Mediwatch PLC	3	2	2	4
Oxford Pharmascience Limited	3	4	4	1
Scientific Digital Imaging plc	3	2	3	3 ▼
Physiomics PLC	2	4	3	1
Source BioScience plc	2 ▼	2	1	2
Tristel PLC ⓘ	2	1	2	2 ▲
Ultrasis PLC	2	3	1	2
Antisoma plc	1	4	3	1
Fusion IP PLC	1	3	2	1
LiDCO Group PLC	1 ▲	1	4	2
Vindon Healthcare plc	1	1	1	3

**As of Feb. 3, 2012. Source: S&P Capital IQ Credit Health Panel. For illustrative purposes only.**

CHP provides an overview of the strengths and weaknesses of every company in the group by looking at their most recent fundamental data. The heat map shows the best performing companies of the group in green, and the underperformers in red. CHP scores each company based on their operational, solvency, and liquidity metrics, and provides an aggregate score.

Asterand PLC is the worst performer and Vindon Healthcare PLC is the best performer of the 17 companies, as seen in figure 2. Cyprotex PLC is ranked among the below average companies, and Mediwatch PLC is ranked just above Cyprotex PLC. Although both companies lag the group average, we used these companies as examples of how we can use client data, cash conversion cycle, and probability of default (PD) to forecast which companies are more likely to outperform their peers in the future.

## Comparing With The Sector

We also analyzed our group of companies by comparing them with the overall sector. In order to facilitate this comparison, we created an alternate peer group consisting of all health care companies in the U.K. and compared the sector average with that of our smaller peer group.

The 17 companies in our peer group have underperformed the U.K. health care sector over the past three years in terms of the recurring earnings to total assets ratio (see chart 1). In addition, our group has had a weaker relationship with its suppliers and customers, with lower payables/receivables than the industry in 2011 and 2010 (see chart 2).

**Chart 1**

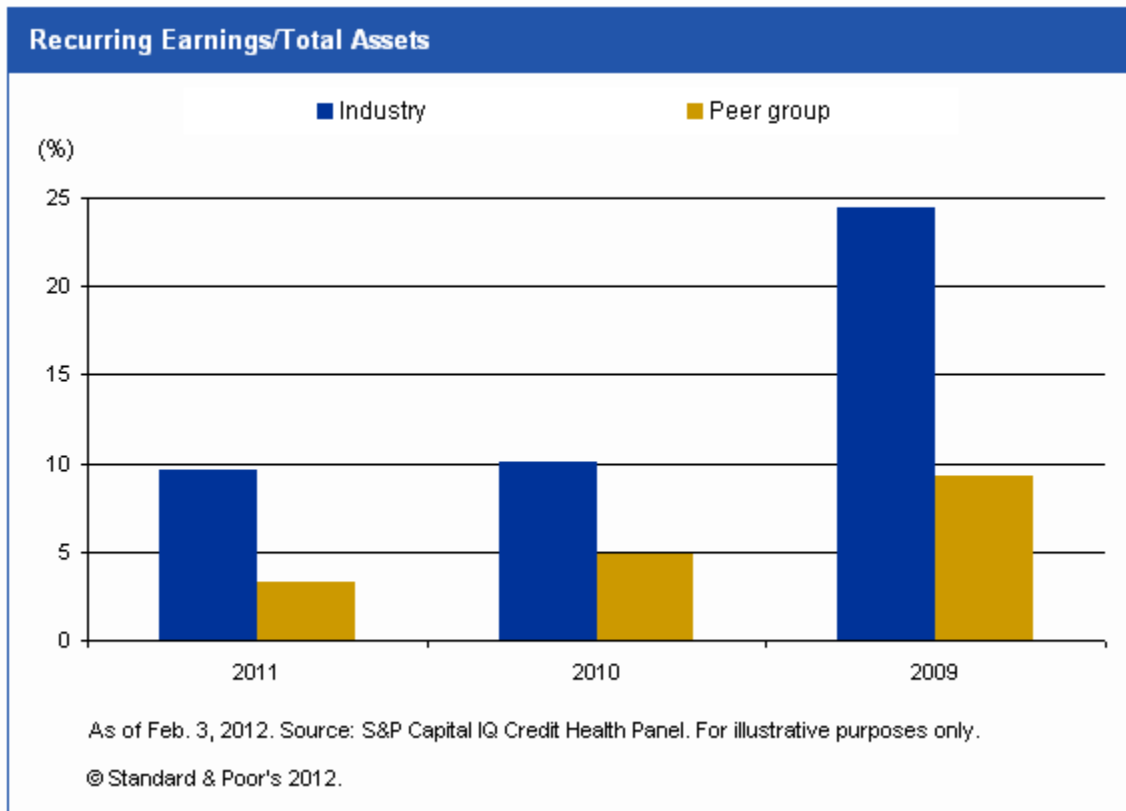
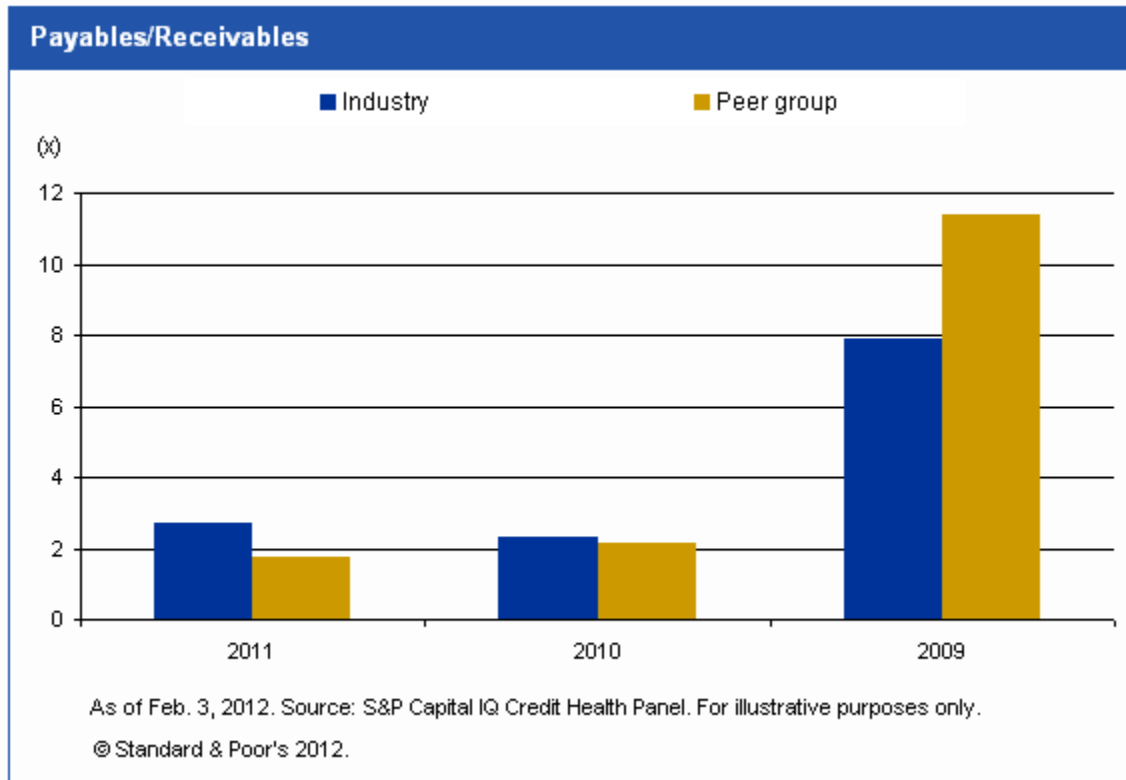


Chart 2



## Moving To An Absolute Analysis

Users can also take a closer look at the quality of a company's client base to assess counterparty risk. Companies that have reported well-known and established companies as business partners are more likely to have a higher quality of receivables and stronger potential of business continuity.

For example, Cyprotex PLC appears to have very strong clientele, as a majority of reported customers have investment-grade ratings (see table 1). Furthermore, Cyprotex's cash conversion cycle metric reveals that the company has enough cash on hand for 39 days in between the sale of its product and its receivables.

Table 1

Cyprotex PLC Reported Customers Key Statistics					
Reported customers	Rating	Sales outstanding	Inventory outstanding	Payables outstanding	Cash conversion cycle
Gentronix Ltd.		N/A	N/A	N/A	N/A
Johnson & Johnson	AAA	N/A	N/A	N/A	N/A
U.S. Environmental Protection Agency		N/A	N/A	N/A	N/A
AstraZeneca PLC	AA-	70	106	128	47
Solvay S.A.	BBB+	89	65	91	64
Takeda Pharmaceutical Co. Ltd.	AA-	86	163	98	150
Sunovion Pharmaceuticals Inc.		41	182	62	161
Roche Holding AG	AA-	78	158	52	183
Novo Nordisk A/S	A+	49	277	92	235

**Table 1**

<b>Cyprotex PLC Reported Customers Key Statistics (cont.)</b>				
Cyprotex PLC	44	88	68	64

As of Feb. 3, 2012. Source: S&P Capital IQ. For illustrative purposes only. Sales outstanding and payables outstanding, inventory outstanding, and cash conversion cycles are represented in days. Information is provided for 2011. Ratings are Standard & Poor's Ratings Services' credit ratings as of Feb. 3, 2012.

A similar analysis for Mediwatch PLC paints a very different picture. Most of the company's clients are unrated, with the exception of Alere Inc. ('B+'), and it has a cash conversion cycle of 58 days (see table 2). These weaker operational metrics could result in short- and long-term liquidity needs that could hurt Mediwatch's creditworthiness. In addition, the company has a limited client list.

**Table 2**

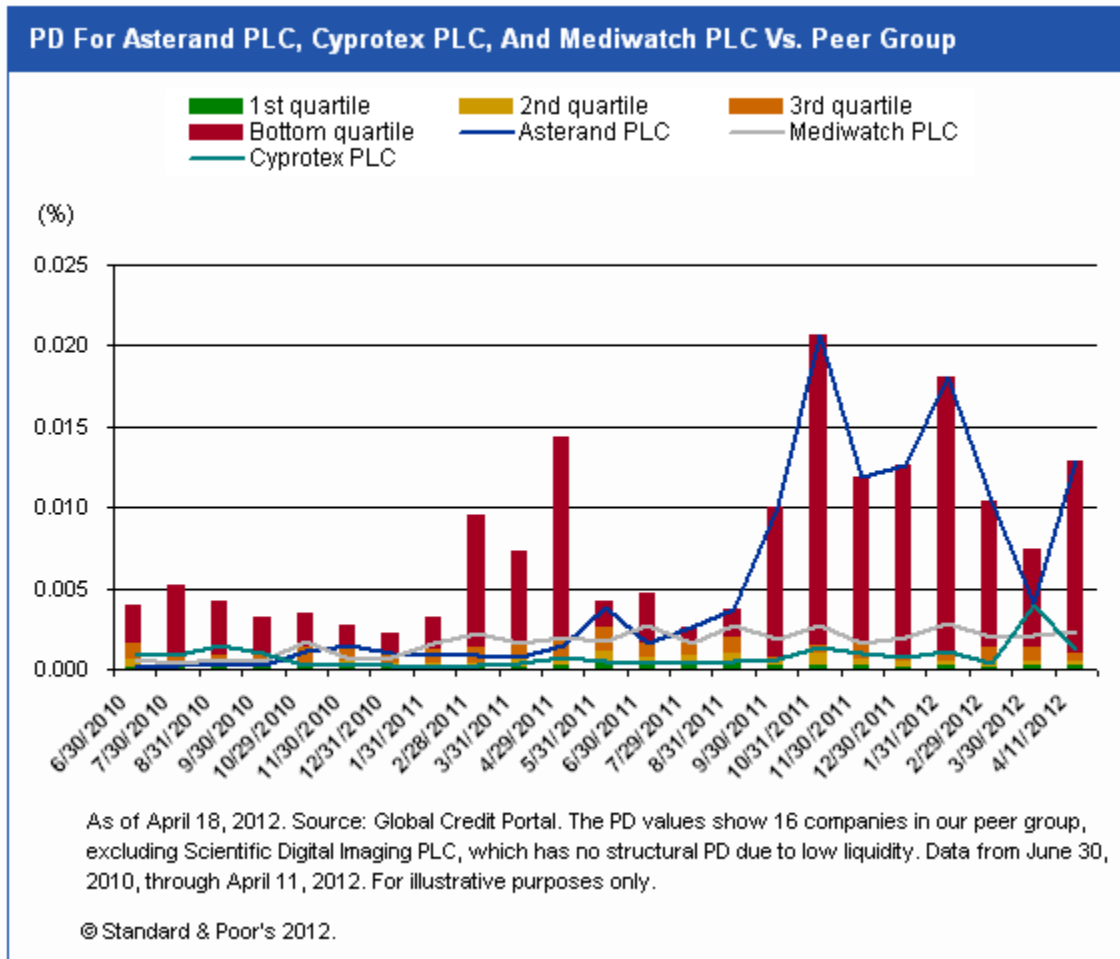
<b>Mediwatch PLC Reported Customers Key Statistics</b>					
<b>Reported customers</b>	<b>Rating</b>	<b>Sales outstanding</b>	<b>Inventory outstanding</b>	<b>Payables outstanding</b>	<b>Cash conversion cycle</b>
EBNeuro SpA		N/A	N/A	N/A	N/A
General Services Administration		N/A	N/A	N/A	N/A
S&V Samford Instruments Ltd.		N/A	N/A	N/A	N/A
Alere Inc.	B+	68	93	43	118
Mediwatch PLC		61	86	90	58

As of Feb. 3, 2012. Source: S&P Capital IQ. For illustrative purposes only. Sales outstanding and payables outstanding, inventory outstanding, and cash conversion cycles are represented in days. Information is provided for 2011. Ratings are Standard & Poor's Ratings Services' credit ratings as of Feb. 3, 2012.

## Probability Of Default Models

We also used a structural PD model to better understand how a company's share price performance can, in some ways, act as a proxy for credit quality. We plotted the structural PD for the 17 companies in our peer group and separated the values into four quartiles (see chart 3). In addition, we demonstrate how the three companies we analyzed, namely Asterand, Mediwatch, and Cyprotex, have specifically moved over that time. For example, since mid 2010, the PD on Asterand has signaled deterioration in credit quality by migrating from the top quartile to the worst PD of all the companies.

Chart 3



Given that structural PDs are market driven, it's generally good practice to look at the trends over the past few months to avoid any outliers derived from one highly volatile trading day. In this case, Asterand's declining equity market performance has pushed its PD upward. As demonstrated by that performance, we show that even among below average companies, investors should consider many differences when examining what drives company performance. From a counterparty risk perspective, Cyprotex demonstrates a very strong client base and very limited short-term liquidity constraints (with diminishing levels of debt in the long term). However, the PD on Mediwatch has been consistently increasing, evidencing a possible deterioration in creditworthiness. Through the equity market, we derived a credit indicator (the market-driven PD), which demonstrated that Asterand has been going through a period of high volatility and declining stock prices, making its PD the worst outlier of the group. Cyprotex PLC has seen volatility on its share price, which caused a spike in its PD. But since the latest earnings results for fourth-quarter 2011 on March 22, 2012, Cyprotex's share price has soared to its highest level in the last 12 months, contributing to an improvement in its PD.

### Conclusion

The need for a transparent and consistent framework that allows users to form a holistic assessment of a company's performance and financial health being is crucial. A peer comparison framework helps assess the quality of an entity against other companies within its sector or industry. Fundamental metrics available on the Global Credit Portal will show companies' historical performance, developing a stronger understanding of a company's liquidity ratios. The quality of a

company's receivables can also shed light on future risks. Our analysis of U.K. health care companies demonstrates how peers with dissimilar customer bases can lead to very different exposures for a potential counterparty. Lastly, we can monitor exposures using absolute quantitative models that can produce a forward-looking PD. Since our initial review on Feb. 3, 2012, we revisited our peer group to see if any changes had occurred since the latest earnings releases (see figure 3).

**Figure 3**

Company Name	Credit Health Panel Company Scores			
	Overall	Operational	Solvency	Liquidity
<b>Asterand PLC</b>	4	1	4	4
<b>Avia Health Informatics Public Limited Company</b>	4	4	2 ▲	4
<b>EDEN RESEARCH PLC</b> ⓘ	4	3	4	4
<b>Healthcare Locums PLC</b>	4	3	3 ▼	4
<b>Proteome Sciences PLC</b>	4	4	4	3
<b>Mediwatch PLC</b>	3	1 ▲	1	4
<b>Oxford Pharmascience Limited</b>	3	4	2 ▲	1 ▲
<b>Scientific Digital Imaging plc</b>	3	2	3 ▼	3
<b>Ultrasis PLC</b>	3	4 ▼	4 ▼	2
<b>Fusion IP PLC</b>	2	3	4 ▼	1
<b>LiDCO Group PLC</b>	2 ▼	2	3 ▲	2 ▼
<b>Physiomics PLC</b>	2	4	2	1
<b>Source BioScience plc</b>	2 ▼	2	3 ▼	2
<b>Antisoma plc</b>	1 ▲	3 ▲	2 ▲	1
<b>Cyprotex PLC</b>	1	1	1	3
<b>Tristel PLC</b>	1	2 ▼	1	2
<b>Vindon Healthcare plc</b>	1 ▲	1	1	3

**As of April 13, 2012. Source: S&P Capital IQ Credit Health Panel. For illustrative purposes only.**

All 17 of these companies reported fourth-quarter 2011 results by April 13, 2012.

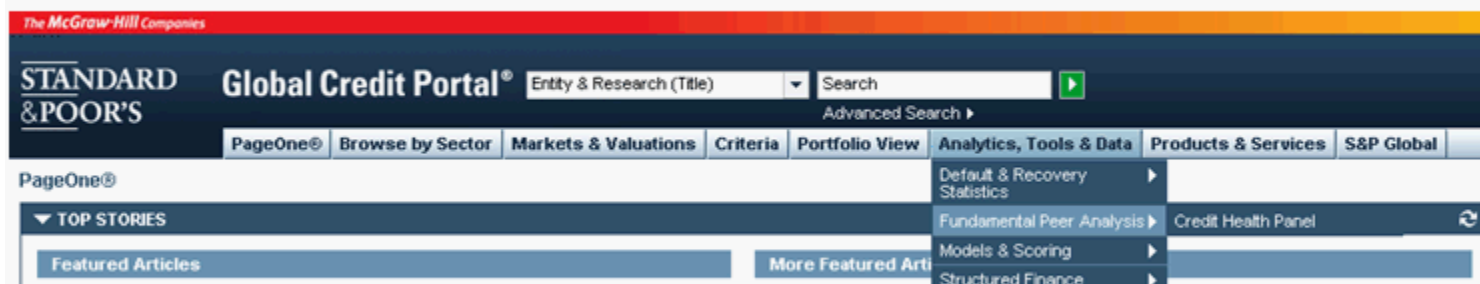
Using new information about the latest financial statements, we found that Cyprotex's ratios have significantly improved, placing it in the top quartile, while Mediwatch PLC has replaced Cyprotex as the lowest ranked company among companies in the below average quartile.



## Getting Behind The Data

On the Global Credit Portal, we combine the solutions we used in this analysis under the Credit Health Panel, the relative analysis tool. Users can access the Credit Health Panel by clicking on Analytics, Tools & Data, then Fundamental Peer Analysis, and finally Credit Health Panel (see figures 4 and 5).

**Figure 4: Accessing Credit Health Panel in the Global Credit Portal**



As of April 13, 2012. Source: S&P Capital IQ. For illustrative purposes only.

**Figure 5: Credit Health Panel Example**

Asterand Plc   Total Companies: 7												
<span style="color: green;">■</span> Top <span style="color: green;">■</span> Above Average <span style="color: orange;">■</span> Below Average <span style="color: red;">■</span> Bottom <span style="float: right;">▲/▼ Score Change</span>												
Company Name	Credit Health Panel Company Scores				LTM Period Ending	Financials Updated	Foreign Long Term Rating	Credit Model Score	Probability of Default	Country	GICS Description	
	Overall	Operational	Solvency	Liquidity								
Amrylin Pharmaceuticals, Inc.	4	4	4	3	30-Sep-2011	25-Nov-2011	b	0.2391%	United States	Biotechnology		
Eisai Co. Ltd.	4	2	4	4	30-Sep-2011	26-Nov-2011	NR	0.0076%	Japan	Pharmaceuticals		
Bristol-Myers Squibb Co.	3	1	2	3	30-Sep-2011	24-Nov-2011	A+	0.0022%	United States	Pharmaceuticals		
Dainippon Sumitomo Pharma Co., Ltd.	3	4	1	4	30-Sep-2011	05-Dec-2011	a	0.0192%	Japan	Pharmaceuticals		
Abcam plc	2	2	3	2	30-Jun-2011	27-Nov-2011		0.0157%	United Kingdom	Biotechnology		
Compugen Ltd.	2	3	3	2	31-Dec-2010	28-Nov-2011			Israel	Life Sciences Tools & Services		
Ono Pharmaceutical Co. Ltd.	1	3	2	1	30-Sep-2011	25-Nov-2011	NR	0.0089%	Japan	Pharmaceuticals		

As of April 13, 2012. Source: S&P Capital IQ. For illustrative purposes only.

## Structural PD Model

The Global Markets Intelligence Structural PD Model provides PD values for all North American financials and non-North American companies. The model is based on the Merton Distance to default calculation. The Merton model assumes that a company has a certain amount of zero-coupon debt that will become due at a future time. The company defaults if the value of its assets is less than the promised debt repayment at such future time. The equity of the company is a European call option on the assets of the company with maturity at the future date and a strike price equal to the face value of the debt. The model takes three company-specific inputs: the equity spot price, the equity volatility (which is transformed into asset volatility), and the debt/share.

## Structural PD

[www.globalcreditportal.com/ratingsdirect/html/pdf/SP\\_Structural\\_PD.pdf](http://www.globalcreditportal.com/ratingsdirect/html/pdf/SP_Structural_PD.pdf)

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