

CreditEdge®: A Powerful Approach to Measuring Credit Risk

CreditEdge gives users the ability to leverage the industry's most accurate PD model through cutting-edge analytics. Users can now access our innovative model through fast and reliable platforms.



CreditEdge.com: User-Friendly Interface that Supports Every Step of Your Workflow

- » Intuitive design helps highlight the most important information
- » Portfolio analytics to facilitate credit risk monitoring
- » Comprehensive bond features including our proprietary Fair Value Spread and Alpha Factor metrics
- » Peer analysis including EDF measures, ratings, and key financial ratios
- » Screening capabilities for companies, bonds, and groups
- » Customizable alerts to highlight changes in your portfolio credit risk
- » Interactive and customizable charts that can be included in your reports
- » Robust reporting including customizable PDF reports



EDF9: Accuracy is Our Model

- » High level of accuracy for corporate and financial firms
- » Advanced early warning power
- » Accurate and stable long-term EDF
- » Additional EDF Models based on TTC, CDS, and Stressed EDFs



Data File Service: Incorporate Credit Measures into Your Internal Processes

- » FTP software file delivery
- » Daily and Historical measures for Entities, Bonds, and CDS data
- » Access to 5 Regional Modules



Excel Add-In: Easily Integrate CreditEdge Data into Your Excel Spreadsheets

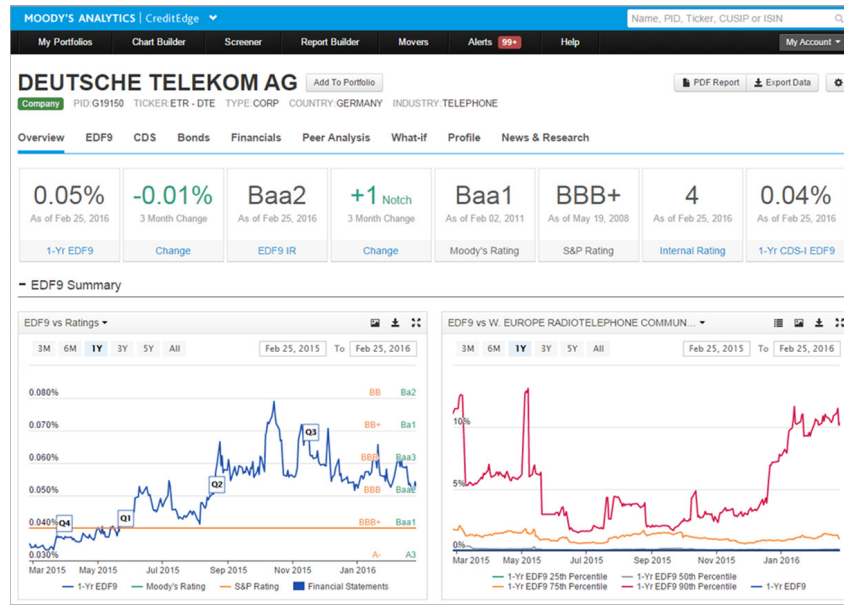
- » Retrieve data directly in Excel without going to the website
- » Automatically refresh your data
- » Build customized reports
- » Leverage predefined templates



API: Web-Based Application to Feed into Internal Website or Desktop Application

- » Download and process large amounts of data in batches
- » Direct access of entities, groups, and bond data from website
- » Services include portfolio creation, EDF calculator, and override functionality

CreditEdge: User-Friendly Interface that Supports Every Step of Your Workflow

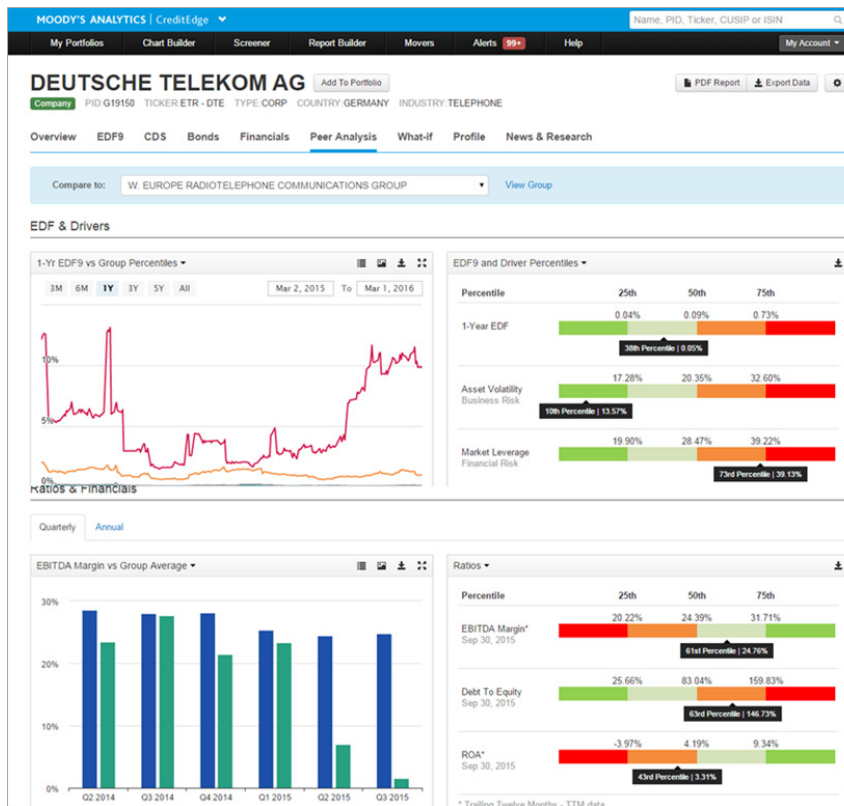


Find entities, groups & bonds using the "Type ahead" search

Get a snapshot of the most relevant information

View historical credit risk data including daily EDF measures since 1999

Customize and export charts for easy inclusion into your reports



Create a PDF report for any company

Select an industry group or portfolio to compare the selected entity

Compare a company's 1-yr EDF and its drivers to the selected group or portfolio

Compare a company's key financial metrics versus the selected group or portfolio

Manage Your Risk with Cutting-Edge Credit Analytics

- » ACCURACY: Minimize credit loss with the most accurate PD model in the market
- » EFFICIENCY: Streamline your assessment and monitoring processes with comprehensive and easy-to-use analytics

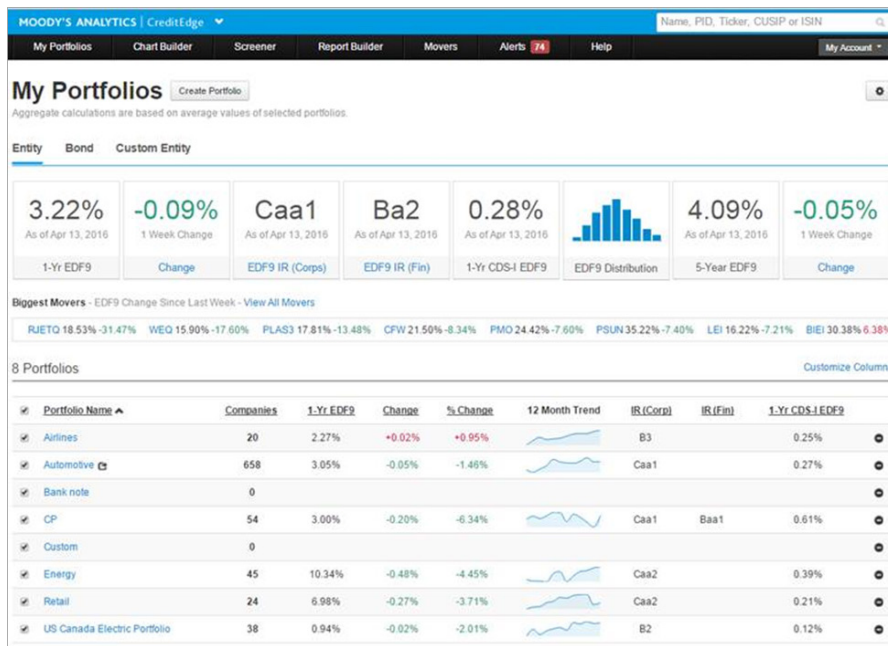
CreditEdge: User-Friendly Interface that Supports Every Step of Your Workflow

Define your search criteria for entities, groups and bonds



Analyze your results using up to 4 different dimensions

View aggregate portfolio trends for individual portfolios



Get a summary of the risk profile of your portfolios

Track the biggest movers across all your portfolios

Manage Your Risk with Cutting-Edge Credit Analytics

- » CONSISTENCY: Apply consistent criteria across all your exposures by leveraging our extensive coverage and powerful screening capabilities
- » FLEXIBILITY: Seamlessly integrate into your workflow through multiple delivery platforms including CreditEdge website, CreditEdge Excel Add-In, CreditEdge Data Feed, and CreditEdge API service that can be integrated with Moody's Analytics RiskAnalyst

Excel Add-in: Easily Integrate CreditEdge Data Into Your Spreadsheets

Moody's Analytics Excel Add-In allows you to access CreditEdge data directly through Excel without logging into the website. Once you install the add-in, you will be able to add CreditEdge data points to any of your spreadsheets. You can also leverage our predefined templates for portfolio risk monitoring and bond portfolio analysis.

MOODY'S ANALYTICS CreditEdge		Quickly identify at-risk names in your portfolio based on 5 metrics: EDF level, EDF term structure, EDF change, relative EDF level, and relative EDF change.					
1. Enter up to 1000 company identifiers in cells B16 to B1015. 2. Enter a date for which to view current values in cell D10. 3. Enter a lookback period in cell D11.							
Current Date: 7/18/2016 Lookback Period: 12 months Previous Date: 7/17/2015							
Enter Identifiers Below:	Company Name	Current 1Y EDF	Current 5Y EDF - 1Y EDF (bps)	Current EDF %Δ	Current Relative EDF	Current Relative EDF %Δ	Aggregate Company Risk Score
ma_id-629140	NISOURCE INC	0.03%	8.66	-55.53%	0.43	-126.29%	0.15
ma_id-N20087	NISKA GAS STORAGE PARTNERS	6.55%	-74.58	-47.49%	99.98	-118.24%	0.70
ma_id-N01133	TRANS ENERGY INC	21.24%	-13.11	-43.96%	324.11	-114.71%	0.70
ma_id-N24655	ONE GAS INC	0.02%	9.34	-35.99%	0.31	-106.75%	0.15
ma_id-219381	CORNING NATURAL GAS HLDG CP	0.47%	71.96	-33.19%	7.23	-103.94%	0.25
ma_id-720186	PIEDMONT NATURAL GAS CO	0.02%	8.35	-33.05%	0.26	-103.81%	0.15
ma_id-667655	NORTHWEST NATURAL GAS CO	0.03%	10.79	-30.07%	0.44	-100.83%	0.15
ma_id-505588	SPIRE INC	0.03%	9.82	-28.53%	0.40	-99.29%	0.15
ma_id-844895	SOUTHWEST GAS CORP	0.03%	10.92	-26.08%	0.41	-96.83%	0.15
ma_id-N20942	TESORO LOGISTICS LP	0.12%	14.25	-25.96%	1.83	-96.72%	0.25
ma_id-769858	RGC RESOURCES INC	0.05%	18.77	-23.58%	0.71	-94.34%	0.20
ma_id-646025	NEW JERSEY RESOURCES CORP	0.02%	8.85	-22.63%	0.31	-93.39%	0.15
ma_id-838518	SOUTH JERSEY INDUSTRIES INC	0.02%	10.58	-20.18%	0.35	-90.94%	0.15
ma_id-N10697	ENBRIDGE INCOME FUND HLDGS	0.03%	12.15	-18.91%	0.53	-89.67%	0.20
ma_id-748356	QUESTAR CORP	0.01%	7.61	-16.80%	0.22	-87.56%	0.15
ma_id-552690	MDU RESOURCES GROUP INC	0.03%	12.53	-15.93%	0.52	-86.68%	0.30
ma_id-N11369	BOARDWALK PIPELINE PRTRNS-LP	0.11%	16.71	-8.53%	1.69	-79.28%	0.35



Query/Retrieve Data Directly into Excel

- » Save time by automating your workflow
- » No need to log in to the website



Leverage Predefined Report Templates

- » Portfolio credit risk monitoring
- » Bond portfolio analysis
- » Early warning



Similar Coverage as Creditedge Website

- » 41,000+ companies
- » 120,000+ bonds
- » 250+ data points



Automatically Refresh Your Data

- » Daily updates
- » Always use the most current CreditEdge outputs



Build Customized Reports

- » Incorporate CreditEdge measures directly into your workflow

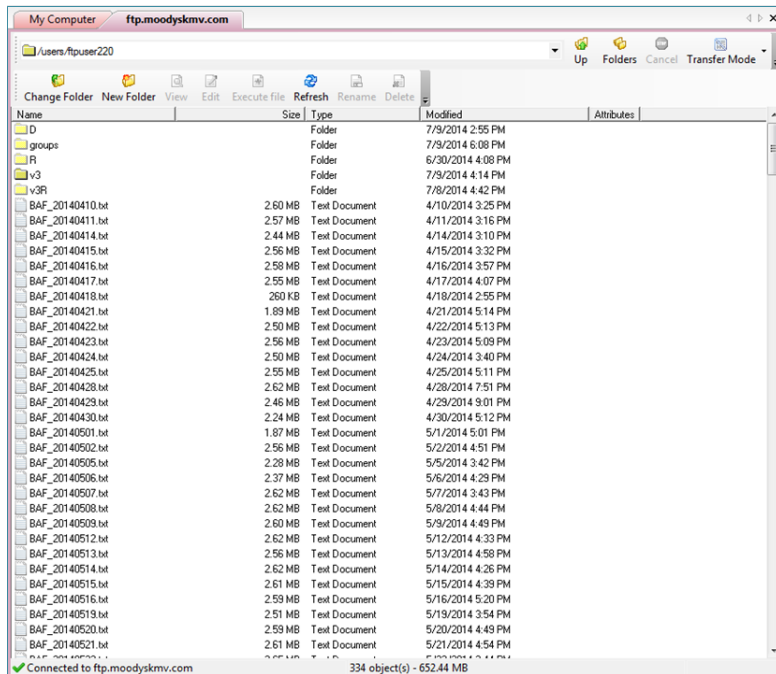


Leverage Our Specialists

- » Utilize our excel add-in specialists for individual or team trainings
- » Request special template customizations to help your work flow

Data File Service (DFS)

Incorporate Credit Measures into Your Internal Processes



Fast Delivery

- » Daily file delivery to the Moody's Analytics FTP site

Transfer Seamlessly to Internal Processes

- » Pipe-delimited text files allow simple implementation of data to internal processes

Same Coverage as Website

- » Access to five regional modules as well as Entity, Bond, and CDS content data

Application Programming Interface (API) Services

WEB-BASED APPLICATION TO FEED INTO INTERNAL WEBSITE OR DESKTOP APPLICATION

Comprehensive Dataset

- » Similar data structure to the Report Builder function from CreditEdge website
- » Ability to recall entity, portfolio, and group data

Faster Download

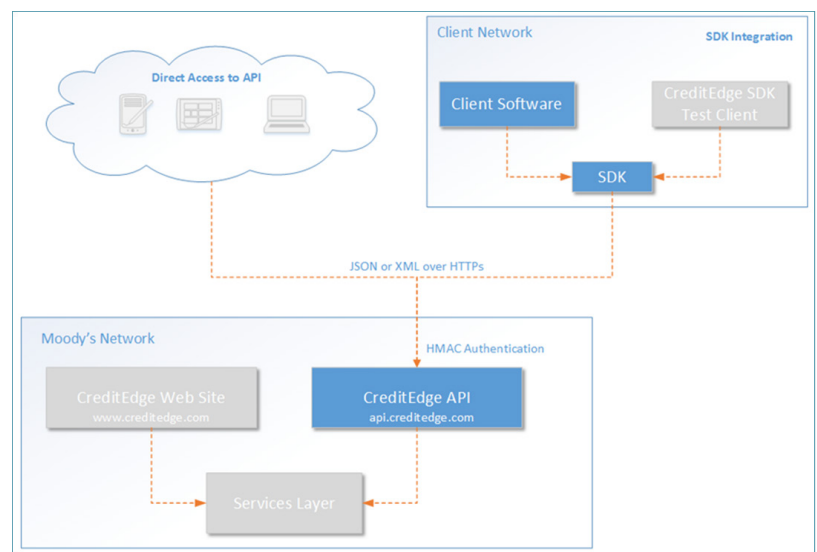
- » Ability to download and process large amounts of data in batches
- » Ability to import datasets into client's own systems using automated back-end jobs

Security

- » Additional layers of security encrypted in the new API
- » Data transferred securely via HTTPS; Authenticity of the data ensured using HMAC

Flexibility

- » Ability to choose between XML and JSON format



EDF9: Accuracy Is Our Model

The culmination of over three years of research, the new EDF model provides a more accurate yet less volatile credit-risk assessment for 41,000+ public firms across the globe. Also, the term structure has been rebuilt from the ground up resulting in less cyclical and more stable PDs that can meet an even wider array of credit risk needs.



High Level of Accuracy for Corporate and Financial Firms

- » Close alignment of EDF-predicted default rate to the actual realized default rate
- » Financial firm-specific calibration
- » Applies lessons learned from the financial crisis
- » Accounts for country-level risk and more granular treatment of industry-level risk



Advanced Early Warning Power

- » Superior capability in separating at-risk names from the rest, far in advance of default



Accurate and Stable Long-Term EDF

- » Stable and prudent EDF metric for applications such as capital/reserve allocation
- » Daily EDF data dating back to 1980

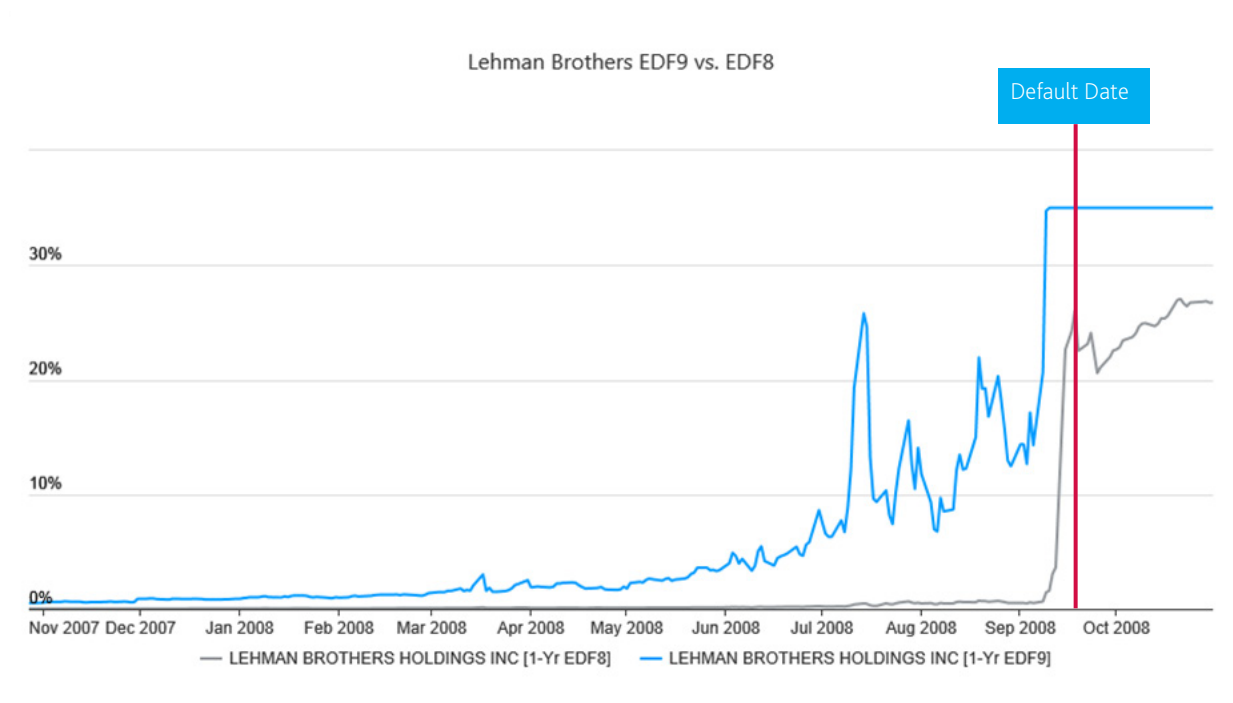


International Calibration

- » Extensive international coverage
- » Covers more business cycles than ever before

Advanced Early Warning Power and Higher Accuracy for Financials

Below is a graphical representation of EDF9 (the blue line) measuring Lehman Brothers' credit risk earlier than our previous EDF8 model.



Powering Credit Risk Management for Top Institutions Around the World

CreditEdge is relied upon by the top financial institutions, corporations, and government entities around the world for a variety of applications:

- » **Supplier Risk:** Choosing vendors and service providers with high credit quality
- » **Qualify New Customers:** Assessing the risk that a domestic or international borrower will default
- » **Early Warning:** Detecting credit deterioration of counterparties early and focusing on riskiest exposures
- » **Limits Management:** Managing exposure to a single customer, industry, or region
- » **Risk-Based Pricing:** Accurately and consistently pricing credit risk
- » **Calculating Credit Reserves:** Strengthening fiscal responsibility and improving overall performance
- » **Input into Internal Credit Rating:** Developing robust and consistent internal credit rating models
- » **Calculating Credit Impairments:** Assessing regulatory credit impairments for investment portfolios
- » **Stress Testing:** Leveraging Stressed EDF measures to comply with regulators or perform strategic analysis
- » **Pre-Screening Investment Opportunities:** Focusing resources in the most relevant investment opportunities
- » **Performing Relative Value Analyses:** Selecting bonds that are trading at a discount to their peers

CreditEdge by the Numbers

45+

Years of default data

1989

When the first EDF measure was calculated

42,000+

EDF measure for publicly traded firms

250+

Data points including EDF measures, credit ratings, financials, CDS and bond metrics

10,500+

Defaults in our global database

74,000+

Active CUSIPs in our database

About Moody's Analytics

Moody's Analytics, a unit of Moody's Corporation, helps capital markets and credit risk management professionals worldwide respond to an evolving marketplace with confidence. The company offers unique tools and best practices for measuring and managing risk through expertise and experience in credit analysis, economic research, and financial risk management. By offering leading-edge software and advisory services, as well as the proprietary credit research produced by Moody's Investors Service, Moody's Analytics integrates and customizes its offerings to address specific business challenges.

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