



REUTERS/Yuya Shino

Corporate Credit Risk

8th October 2017

Luca Costantini

Specialist Manager
@ Thomson Reuters

Università di Roma



The intelligence, technology and human expertise
you need to find trusted answers.

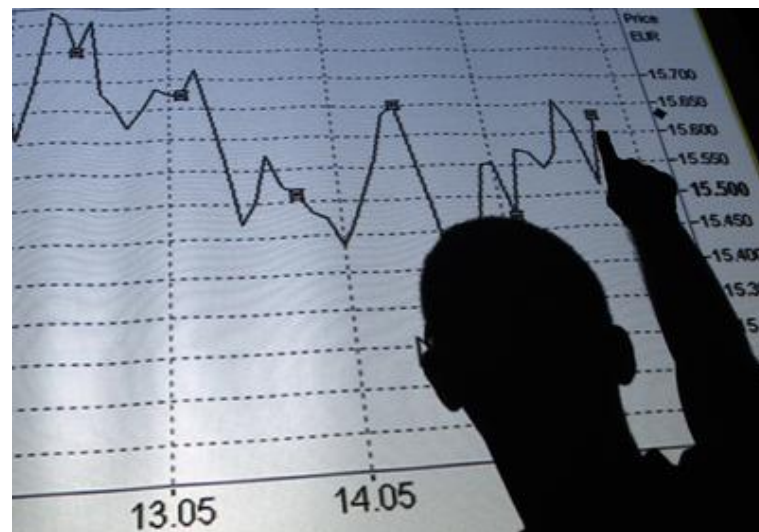


the answer company™

THOMSON REUTERS®

Corporate Credit Risk

- Fundamental Analysis
- Issuer Debt Structure
 - Bonds and Loans
 - New issues
- Ratings
- Credit Curve, Issuer Curves, Bond Curve Analysis
- Credit Default Swap
 - Markit Intraday, TR EOD, CDS Indices, Sector CDS
- StarMine Credit Risk Model
 - Structural, Smart Ratio, Text Mining, Combined



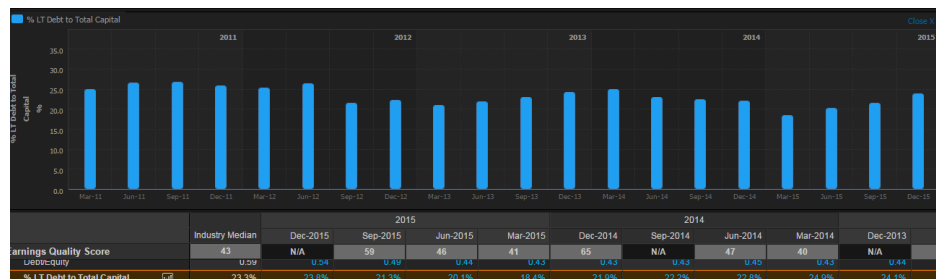
REUTERS/Tony Gentile

Fundamentals

In the management of a business it is crucial to have knowledge that allow to judge the soundness of the company, which is closely related to the concept of solvency, ie the ability to settle its debts through the use of resources arrangement.

Solvency is the ability of a company to meet its long-term financial obligations. Solvency is essential to staying in business, but a company also needs liquidity to thrive.

Liquidity is a company's ability to meet its short-term obligations. A company that is insolvent must enter bankruptcy; a company that lacks liquidity can also be forced to enter bankruptcy even if it is solvent.



Solvency Ratio

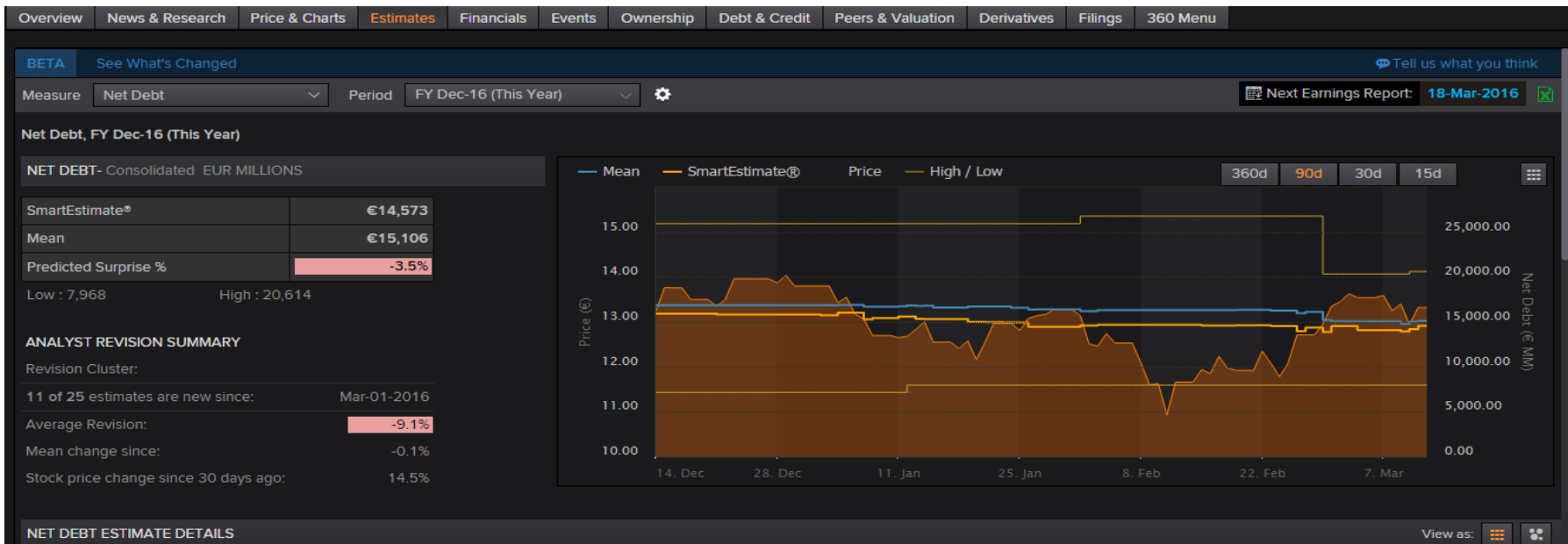
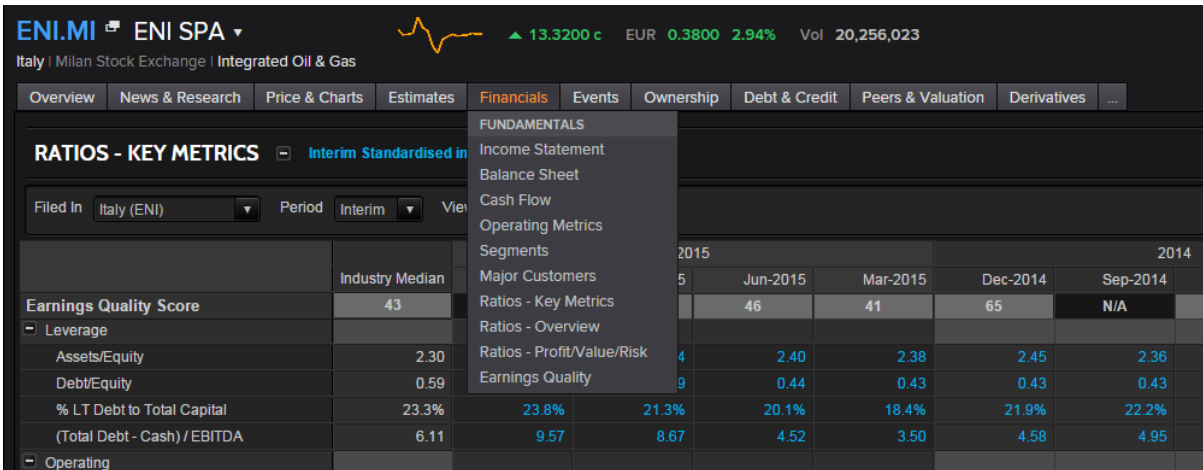
A key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short-term and long-term liabilities. The lower a company's solvency ratio, the greater the probability that it will default on its debt obligations.

$$\text{Solvency Ratio} = \frac{\text{Net Income (or After-Tax Profit) + Depreciation}}{\text{Short-Term Liabilities + Long-term Liabilities}}$$

RATIOS - KEY METRICS Interim Standardised in Millions of Euros							
Filed In	Italy (ENI)	Period	Interim	View	Standardised		
			2015				
Earnings Quality Score	43	N/A	59	46	41	65	
Liquidity							
Quick Ratio	1.12	1.23	1.12	1.15	1.18	1.2	
Current Ratio	1.42	1.36	1.33	1.34	1.36	1.4	
Times Interest Earned	3.4	-	-	-	-	-	
Cash Cycle (Days)	15.5	265.4	100.3	(71.9)	62.6	73.	
Leverage							
Assets/Equity	2.30	2.60	2.44	2.40	2.38	2.4	
Debt/Equity	0.59	0.54	0.49	0.44	0.43	0.4	
% LT Debt to Total Capital	23.3%	23.8%	21.3%	20.1%	18.4%	21.9%	
(Total Debt - Cash) / EBITDA	6.11	9.57	8.67	4.52	3.50	4.5	

EIKON TOOLS TO MONITORING AND ANALYSE: Fundamentals

FUNDAMENTAL COMPANY OVERVIEW



Corporate Bond Issues

Companies usually issue bonds as a method of financing the business.

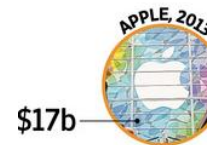
Corporate bonds are a major source of capital for many businesses along with equity and bank loans/lines of credit.

Corporate bonds are considered higher risk than government bonds. As a result, interest rates are almost always higher, even for top-flight credit quality companies.

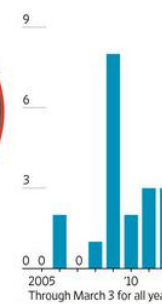
The higher a company's perceived credit quality, the easier it becomes to issue debt at low rates and issue higher amounts of debt.

Corporate bonds are issued in blocks of \$1,000 in par value, and almost all have a standard coupon payment structure. Corporate bonds may also have call provisions to allow for early prepayment if prevailing rates change.

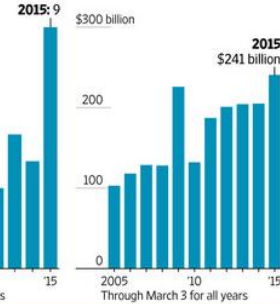
Top bond sales globally on record



U.S. investment-grade bond deals of more than \$5 billion



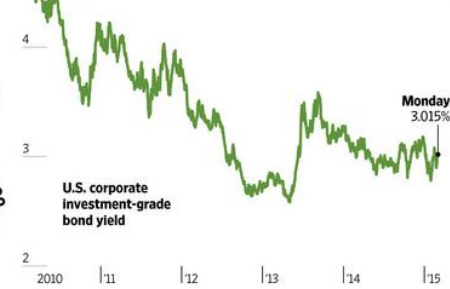
U.S. investment-grade corporate bond issuance



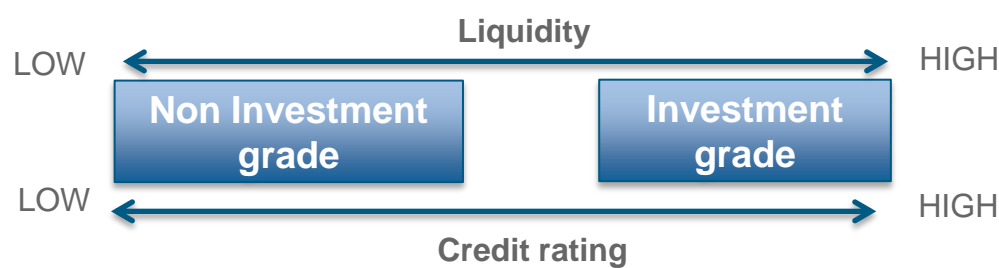
Bond Boom
Giant corporate-debt sales have proliferated since the financial crisis.

\$116.5 billion U.S. investment-grade corporate-bond issuance in February

\$90 billion Estimated investor orders for Actavis sale Tuesday



Source: <http://davidstockmanscontracorner.com/thanks-for-the-corporate-bond-bubble-fed/>



EIKON TOOLS TO MONITORING AND ANALYSE :Corporate New Issues

FINIM - NEW ISSUES MONITOR

Fixed Income New Issues Monitor

Criteria *

- Show only latest deal status
- Deal Status: Include All
- Characteristic: Include All
- Currency of Issue: Include All
- Domicile of Issuer: Include All
- Issuer Name: contains Any
- Sector / Subsector: Include All
- Updated: last 30 Days

Live Updates: On 15-Mar-2016 10:29:47

Displaying: 1 - 200 of 1,936 records

Show 200 per page

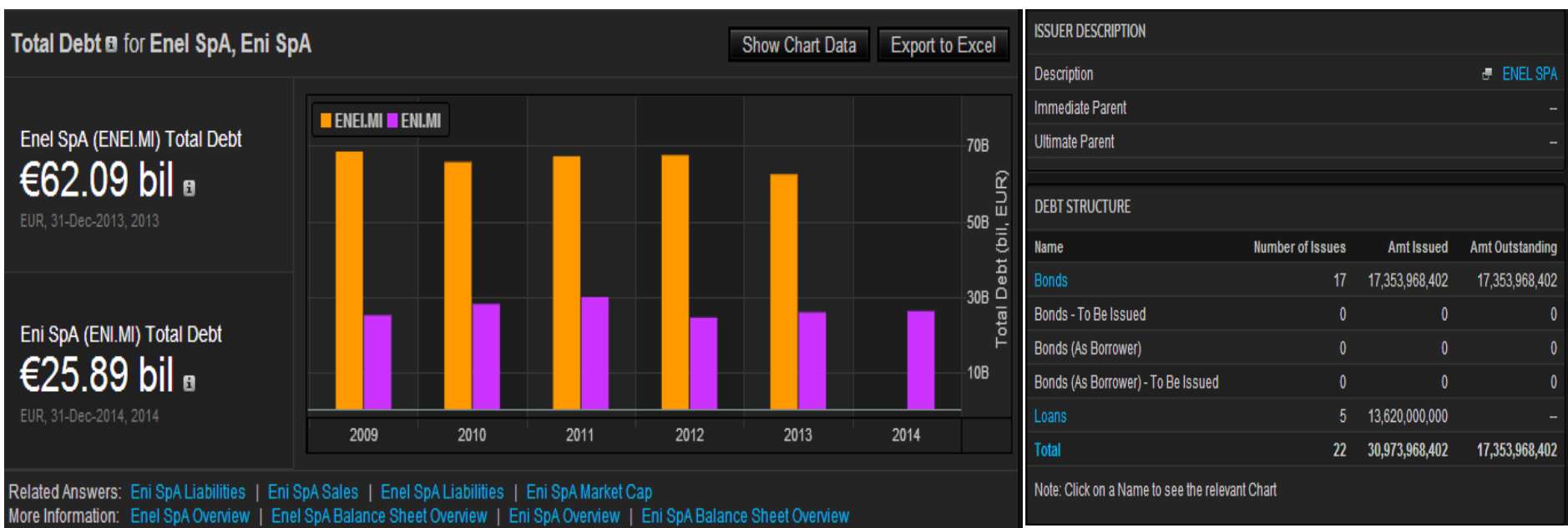
Updated	Issuer Name	Issuer News	Term to Maturity	Deal Status	Deal Summary
15-Mar-2016 10:25	AXA BANK EUROPE SCF SA	View	--	MANDATE	View
15-Mar-2016 10:11	PFANDBRIEFZENTRALE DER SCHWEL...	View	18Y	PRICE GUIDAN...	View
15-Mar-2016 10:10	PFANDBRIEFZENTRALE DER SCHWEL...	View	11.8Y	PRICE GUIDAN...	View
15-Mar-2016 10:08	PFANDBRIEFZENTRALE DER SCHWEL...	View	5.7Y	PRICE GUIDAN...	View
15-Mar-2016 10:06	SILVER ARROW CHINA 2016-1	View	--	MANDATE	View
15-Mar-2016 10:04	ING BANK NV	View	5Y	PRICE GUIDAN...	View
15-Mar-2016 10:03	ING BANK NV	View	5Y	PRICE GUIDAN...	View
15-Mar-2016 10:01	ING BANK NV	View	3Y	PRICE GUIDAN...	View
15-Mar-2016 10:00	ING BANK NV	View	3Y	PRICE GUIDAN...	View
15-Mar-2016 09:53	TORONTO-DOMINION BANK	View	4.75Y	PRICED	View
15-Mar-2016 09:47	THYSSENKRUPP AG	View	5Y	PRICE GUIDAN...	View
15-Mar-2016 09:44	BANCO SANTANDER SA	View	10Y	PRICE GUIDAN...	View
15-Mar-2016 09:43	SCENTRE MANAGEMENT LTD	View	7Y	PRICE GUIDAN...	View
15-Mar-2016 09:37	BERLIN, LAND OF	View	10Y	BOOKBUILDING	View
15-Mar-2016 09:35	RELX FINANCE BV	View	10Y	PRICE GUIDAN...	View
15-Mar-2016 09:27	BRISA CONCESSAO RODOVIARIA SA	View	7Y	PRICE GUIDAN...	View
15-Mar-2016 09:11	ROYAL BANK OF SCOTLAND GROUP...	View	7Y	BOOKBUILDING	View



DCM PRICER

EIKON TOOLS TO MONITORING AND ANALYSE: Debt Structure

A debt structure provides a historical window into a company's liabilities, indicating to investors the maturity dates of corporate debts. The idea is to tell investors how soon the business must settle debts and whether it has the money to do so. The term "debt structure" draws on the concept of debt, which is a sum of cash a borrower must repay through periodic installments or in a lump-sum payment.



Ratings

A **credit rating** is an evaluation of the credit worthiness of a debtor (company or government) predicting the debtor's ability to pay back the debt; it thus forecasts implicitly the likelihood of the debtor's default. The credit rating represents the evaluation of the credit rating agency of qualitative and quantitative information for the debtor; including non-public information obtained by the credit rating agencies' analysts.

A poor credit rating indicates a credit rating agency's opinion that the government has a high risk of defaulting, based on the agency's analysis of the entity's history and analysis of long term economic prospects.

Ratings are typically separated into two main classifications:

“Investment Grade”,: from AAA at the top, down to Baa3/BBB-/BBB- at the bottom;

“Non-Investment Grade” (speculative grade, junk, high yield, etc.) from Ba1/BB+/BB+ through to D (where default has occurred).

Moody's		S&P		Fitch		Rating description
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime
Aa1		AA+		AA+		High grade
Aa2		AA		AA		
Aa3		AA-		AA-		
A1		A+		A+		
A2	A	A-1	A	F1	Upper medium grade	
A3	A-	A-	A-	F2		
Baa1	P-2	BBB+	A-2	BBB+	F3	Lower medium grade
Baa2	P-3	BBB	A-3	BBB		
Baa3		BBB-		BBB-		
Ba1	Not Prime	BB+	B	BB+	B	Non-investment grade speculative
Ba2		BB		BB		
Ba3		BB-		BB-		
B1		B+		B+		Highly speculative
B2		B		B		
B3		B-		B-		
Caa1		C		CCC+		
Caa2	CCC		CCC			
Caa3	CCC-		CCC-			
Ca	CC		CC	Extremely speculative		
C	C		C			
/	RD	DDD	D		Default imminent	
/	SD	DD		In default		
/	D	D	D		D	

Corporate Ratings

CORPORATE CREDIT RATINGS: the credit rating of a corporation is a financial indicator to potential investors of debt securities such as bonds. Credit rating is usually used to value a financial instrument such as a bond, rather than the whole corporation and have letter designations such as A, B, C.

CREDIT RATING METHODOLOGY:

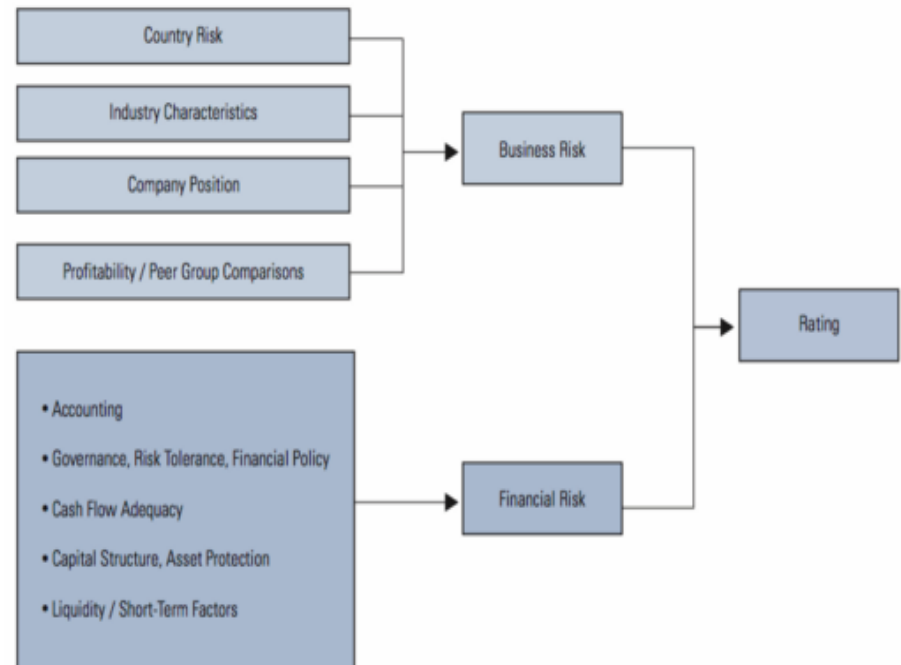
Business analysis: covers an analysis of industry risk, market position in the country, operating efficiency of the company and legal position.

Financial Analysis: analysis of accounting quality, earnings protection, cash flow adequacy and financial flexibility.

Management Evaluation: study of track record of the management's capacity to overcome adverse situations, goals, philosophy and strategies.

Fundamental analysis. analysis of liquidity management, asset quality, profitability and interest and tax sensitivity.

Getting to the corporate credit rating ("CCR")



© Standard & Poor's 2009.

EIKON TOOLS TO MONITORING AND ANALYSE: Debt Structure

ISSUER RATINGS MONITOR

Beta [Send us your feedback](#)

Action Type: Rating, Outlook, Watch, Affirmation | Rating Scope: Domestic, Foreign | Rating Source/Description: Asset Backed Master Servicer,...

Region/Country: Italy | Sector: Any

Date Range: 60 days | [Update](#) | [Restore to Default Filters](#)

Total Items: 202 |

Effective Date	Issuer Name	Country	Sector	Rating Source/Description	Rating Scope	Action Type	Current	Previous
2015-03-11 (2)								
2015-03-11	INTESA SANPAOLO SPA	Italy	Banking	Moody's Senior Unsecured	Domestic	Outlook	STA	
2015-03-11	INTESA SANPAOLO SPA	Italy	Banking	Moody's Senior Unsecured	Foreign	Outlook	STA	
2015-03-10 (2)								
2015-03-10	ROTTAPHARM SPA	Italy	Service - Other	S&P's Long-term Issuer Rating	Domestic	Rating	NR	BB-
2015-03-10	ROTTAPHARM SPA	Italy	Service - Other	S&P's Long-term Issuer Rating	Foreign	Rating	NR	BB-
2015-03-06 (13)								
2015-03-06	REGIONE AUTONOMA VALLE D AOSTA	Italy	Official and M...	Fitch's Long-term Issuer Defau...	Foreign	Outlook	Sta	
2015-03-06	REGIONE AUTONOMA VALLE D AOSTA	Italy	Official and M...	Fitch's Long-term Issuer Defau...	Domestic	Outlook	Sta	
2015-03-06	SOCIETA REALE MUTUA DI ASSICURAZIONI	Italy	Property and ...	Fitch's Insurer Financial Strength	Foreign	Affirmation	BBB+	
2015-03-06	GRUPPO EDITORIALE L'ESPRESSO SPA	Italy	Publishing	S&P's Long-term Issuer Rating	Domestic	Rating	NR	BB-
2015-03-06	GRUPPO EDITORIALE L'ESPRESSO SPA	Italy	Publishing	S&P's Long-term Issuer Rating	Foreign	Rating	NR	BB-

Rating News:
[AAA]

BBB

ISSUER RATINGS

Rating Agency Name & Rating Type	Rating	Rating Date
S&P's Senior Unsecured (Foreign)	BBB	11-Jul-2013
	BBB+	08-Mar-2012
	A-	17-Feb-2012
	A-	14-Dec-2007
	A	07-Jun-2007
	A+	05-Oct-2001
S&P's Senior Unsecured (Domestic)	BBB	11-Jul-2013
S&P's Long-term Issuer Rating (Foreign)	BBB	11-Jul-2013
S&P's Long-term Issuer Rating (Domestic)	BBB	11-Jul-2013
S&P's Long-term Senior Unsecured MTN Rating (Domestic)	BBB	11-Jul-2013
S&P's Junior Subordinated (Foreign)	BB+	11-Jul-2013
S&P's Junior Subordinated (Domestic)	BB+	11-Jul-2013
S&P's Short-term Issuer Credit Rating (Foreign)	A-2	14-Dec-2007
S&P's Short-term Issuer Credit Rating (Domestic)	A-2	14-Dec-2007
Moody's Senior Unsecured Bank Credit Facility Rating (Domestic)	Baa2	12-Dec-2013
Moody's Senior Unsecured (Foreign)	Baa2	05-Nov-2012
Moody's Senior Unsecured (Domestic)	Baa2	05-Nov-2012
Moody's Long-term Senior Unsecured MTN Rating (Domestic)	(P)Baa2	12-Dec-2013
Moody's Junior Subordinated (Foreign)	Ba1	09-Sep-2013
Moody's Junior Subordinated (Domestic)	Ba1	12-Dec-2013

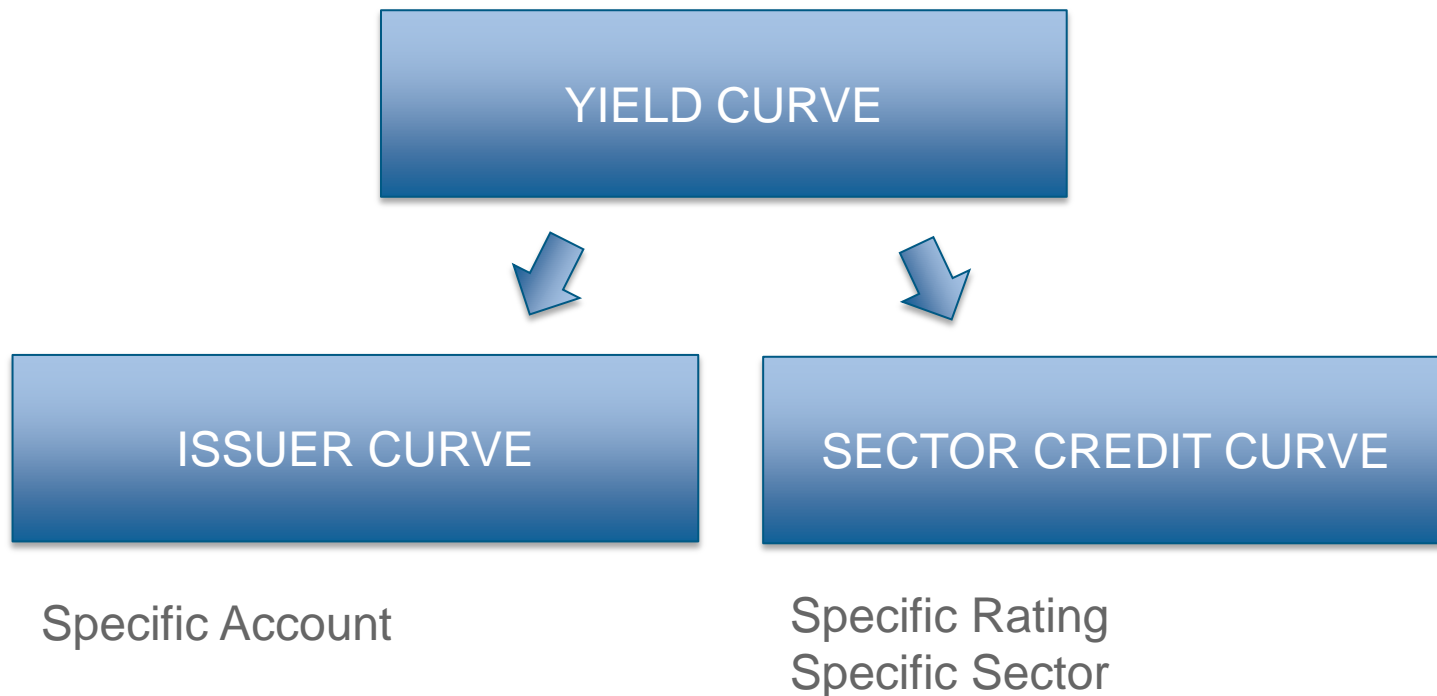
<http://training.thomsonreuters.com/video/v.php?v=1434&pmf=0mf>

CORP ISSUER CREDIT RATINGS [View All](#)

Agency	Rating	Date
S&P Foreign	BBB-	18-Dec-2014
Moody Foreign	Baa1	22-Jun-2015
Fitch Foreign	BBB+	1-Apr-2015

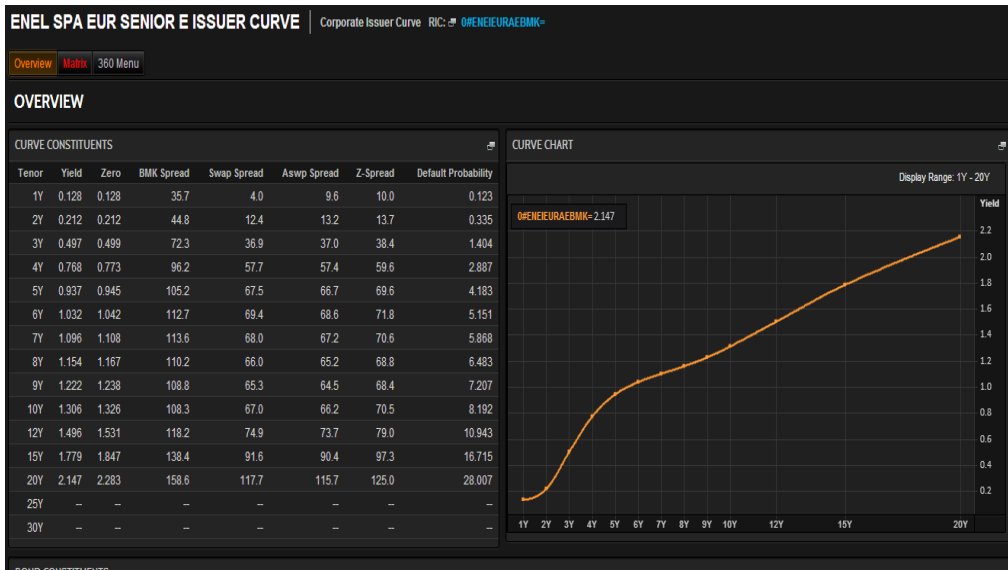
Yield, Credit Curve and Issuer Curves

Yield curve: is a curve showing several yields or interest rates across different tenors for a similar debt contract. The curve shows the relation between the interest rate and the time to maturity.



EIKON TOOLS TO MONITORING AND ANALYSE : Issuer Curves

<ISSUER CURVES>



ISSUER CURVES

THOMSON REUTERS CORPORATE ISSUER CURVES GUIDE

CORP ISSUER CURVES Contact: peter.lai@thomsonreuters.com
gigi.tan@thomsonreuters.com

In this space Thomson Reuters provides real-time yield curves for Corporate Issuers using Thomson Reuters Evaluated Bond Prices. Curves are available from 1Yr-30Yr with analytics including Par/Zero Yields, Benchmark/Swap/Asset/Z-spread as well as Default Probabilities.

DOMESTIC ISSUER CURVES BY CURRENCY

G7 CURRENCY	CCY	CURVE CHAIN	CONSTITUENT CHAIN
US Dollar	USD	0#USDCURVES	0#USDIBONDS
Euro	EUR	0#EURICURVES	0#EURIBONDS
Japanese Yen	JPY	0#JPYICURVES	0#JPYIBONDS
Canadian Dollar	CAD	0#CADICURVES	0#CADIBONDS
Swiss Franc	CHF	0#CHFICURVES	0#CHFIBONDS

OTHER CURRENCY CCY CURVE CHAIN CONSTITUENT CHAIN

YCBBR – YIELD CURVE BUILDER

Currency: EUR Country: Germany Trade Date: 15 mar 2016

Treasuries TWEB Credit Curves: No Curve User Curve: No Curve Delete

Curve Constituents

Calculation Parameters

Curve Constituents Rich/Cheap Analysis

Display: 10 - 2Y Ignore BMK: No Collapse

Bond ID	Name	Maturity	Coupon	Price	Yield	Sprd from Spline
DE0001141604	OBL160	4/16	08 apr 2016	2,75	100,198	-0,513
DE0001137461	BKO	6/16	10 giu 2016	0,25	100,169	-0,466
DE0001134468	DBR	6/16	20 giu 2016	6,00	101,687	-0,463
DE0001135309	DBR	7/16	04 lug 2016	4,00	101,337	-0,462
DE0001137479	BKO	9/16	16 set 2016	0,00	100,241	-0,472
DE0001141612	OBL161	0/16	14 ott 2016	1,25	101,000	-0,469
DE0001137487	BKO	D/16	16 dic 2016	0,00	100,345	-0,452
DE0001135317	DBR	1/17	04 gen 2017	3,75	103,414	-0,486
DE0001141620	OBL162	2/17	24 feb 2017	0,75	101,143	-0,454
DE0001137495	BKO	3/17	10 mar 2017	0,00	100,449	-0,449
DE0001141638	OBL163	4/17	07 apr 2017	0,50	101,012	-0,453
DE0001104602	BKO	6/17	16 giu 2017	0,00	100,572	-0,456
DE0001135333	DBR	7/17	04 lug 2017	4,25	106,142	-0,456
DE0001104610	BKO	9/17	15 set 2017	0,00	100,687	-0,456
DE0001141646	OBL164	0/17	13 ott 2017	0,50	101,509	-0,453
DE0001104628	BKO	D/17	15 dic 2017	0,00	100,806	-0,459
DE0001135341	DBR	1/18	04 gen 2018	4,00	108,087	-0,462
DE0001141653	OBL165	2/18	23 feb 2018	0,50	101,868	-0,458

Basis Spline Curve View: Mid

Hide Curve Constituents Save As: Save Expand Chart Default View

Calculated Curves

Term	Par Yield	BMK Spread
1Y	-0,4621	-4,51
2Y	-0,4603	-1,23
3Y	-0,4334	0,90
4Y	-0,3747	-1,40
5Y	-0,2940	-3,00
6Y	-0,1976	0,70
7Y	-0,0892	3,24
8Y	0,0265	3,27
9Y	0,1436	0,12
10Y	0,2566	-1,54
15Y	0,6874	9,80
20Y	0,9142	6,42
25Y	1,0060	3,47
30Y	1,0288	2,91

Auto

Zoom x-axis in/out: Ctrl + mouse wheel/down
Zoom both axes in/out: Ctrl+/Ctrl-

Par Yield Curve Constituents IDN Curve No Curve

Compare to: EUR User Curve

15 mar 2016

EIKON TOOLS TO MONITORING AND ANALYSE : Credit Curves

<CREDITCURVES>

CREDITCURVES Quote CREDITCURVES

CREDITCURVES

THOMSON REUTERS BOND CREDIT CURVES GUIDE

RATING & SECTOR BOND CREDIT CURVES Contact: peter.lai@thomsonreuters.com
gigi.tan@thomsonreuters.com

In this space Thomson Reuters provides real-time yield curves for investment grade non-government bonds across full rating buckets (AAA down to CC) and high level sectors where available. Credit Curves by bond-grade (i.e. Investment Grade and High Yield breakouts) are available for Asia ex-Japan and Middle East.

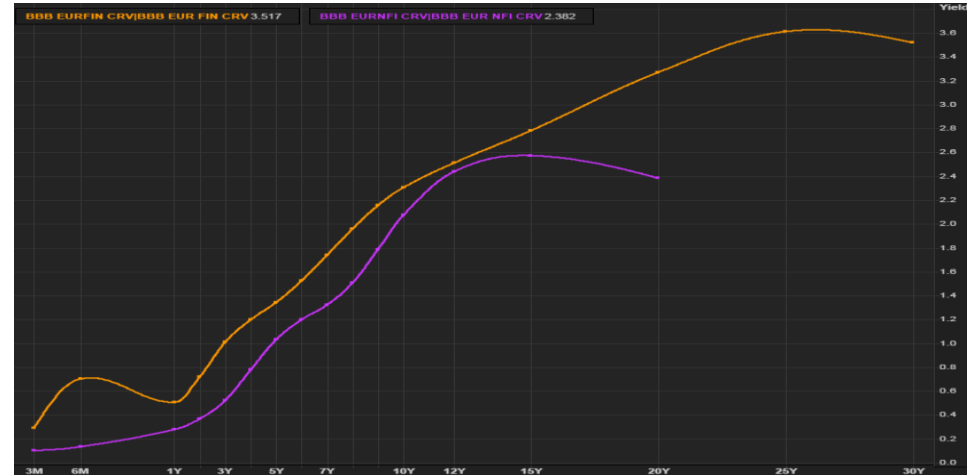
===== G7 FULL RATING GLOBAL BENCHMARK INVESTMENT GRADE CURVES =====

CURRENCY	AAA	AA	A	BBB
EUR	<0#AAAEURBMK=>	<0#AAEURBMK=>	<0#AEURBMK=>	<0#BBBEURBMK=>
EUR (TRPS)	<0#AAAEURRBMK=>	<0#AAEURRBMK=>	<0#AEURRBMK=>	<0#BBBEURRBMK=>
USD	<0#AAAUDBMK=>	<0#AAUSDBMK=>	<0#AUSDBMK=>	<0#BBBUSDBMK=>
USD (Domestic)	<0#AAAUDDDBMK=>	<0#AAUSDDDBMK=>	<0#AUSDDDBMK=>	<0#BBBUSDDDBMK=>
GBP	<0#AAAGBPRBMK=>	<0#AAGBPRBMK=>	<0#AGBPRBMK=>	<0#BBBGBPRBMK=>
GBP (TRPS)	<0#AAAGBPRRBMK=>	<0#AAGBPRRBMK=>	<0#AGBPRRBMK=>	<0#BBBGBPRRBMK=>
CAD	<0#AAACADBMK=>	<0#AACADBMK=>	<0#ACADBMK=>	<0#BBBCADBMK=>
JPY	<0#AAAJPYBMK=>	<0#AAJPYBMK=>	<0#AJPYBMK=>	<0#BBBJPYBMK=>
JPY (Domestic)	<0#AAAJPYDBMK=>	<0#AAJPYDBMK=>	<0#AJPYDBMK=>	<0#BBBJPYDBMK=>
JPY (Samurai)	<0#AAJPYSBMK=>	<0#AAJPYSBMK=>	<0#AJPYSBMK=>	<0#BBBJPYSBMK=>

===== G7 NON-INVESTMENT GRADE CURVES =====

CURRENCY	BB	B/CCC/CC	ALL CURVES	CONSTITUENTS
EUR	<0#BBEURBMK=>	<0#BEURBMK=>	<0#EURCURVES>	<0#EURBONDS>
EUR (TRPS)	<0#BBEURRBMK=>	<0#BEURRBMK=>	<0#EURCURVESR>	<0#EURBONDSR>
USD	<0#BBUSDBMK=>	<0#BUSDBMK=>	<0#USDCURVES>	<0#USDBONDS>
USD (Domestic)	<0#BBUSDDDBMK=>	<0#BUSDDDBMK=>	<0#USDDOMCURVES>	<0#USDDOMBONDS>
GBP	<0#BBGBPRBMK=>	<0#BGBPRBMK=>	<0#GBPCURVES>	<0#GBPBONDS>
GBP (TRPS)	<0#BBGBPRRBMK=>	<0#BGBPRRBMK=>	<0#GBPCURVESR>	<0#GBPBONDSR>
CAD	<0#BBCADBMK=>	<0#BCADBMK=>	<0#CADCURVES>	<0#CADBONDS>
JPY	<0#BBJPYBMK=>	<0#BJPYBMK=>	<0#JPYCURVES>	<0#JPYBONDS>
JPY (Domestic)	<0#BBJPYDBMK=>	<0#CCJJPYDBMK=>	<0#JPYDOMCURVES>	<0#JPYDOMBONDS>
JPY (Samurai)	<0#BBJPYSBMK=>	<0#CCJJPYSBMK=>	<0#JPYSAMCURVES>	<0#JPYSAMBONDS>

CURV – CURVE CHART



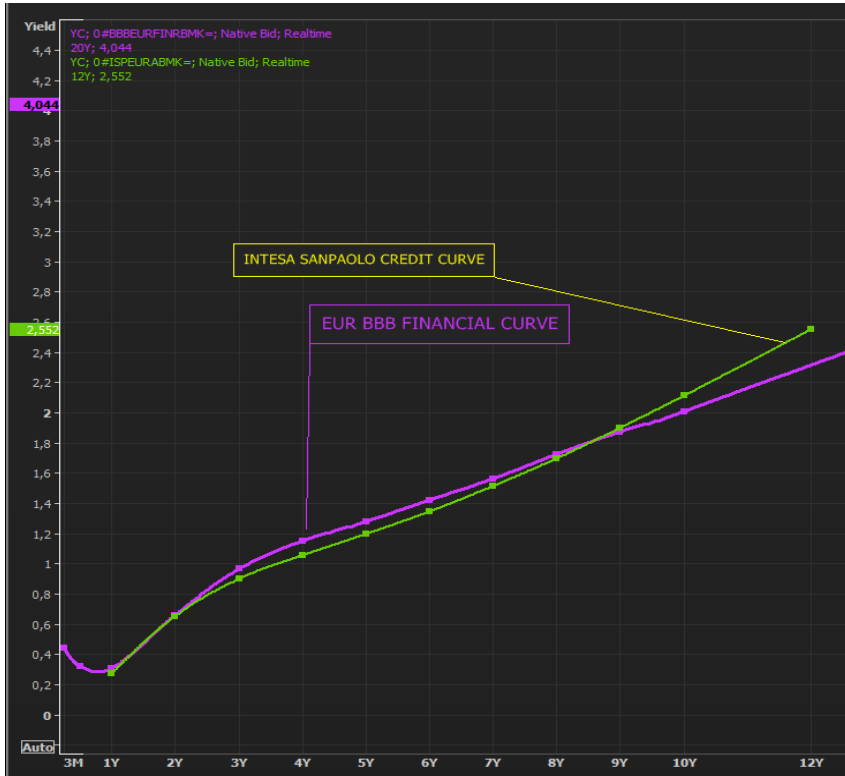
THOMSON REUTERS Bond Credit Curve

Result: Curve updating successfully on 15-Mar-16 09:49:02

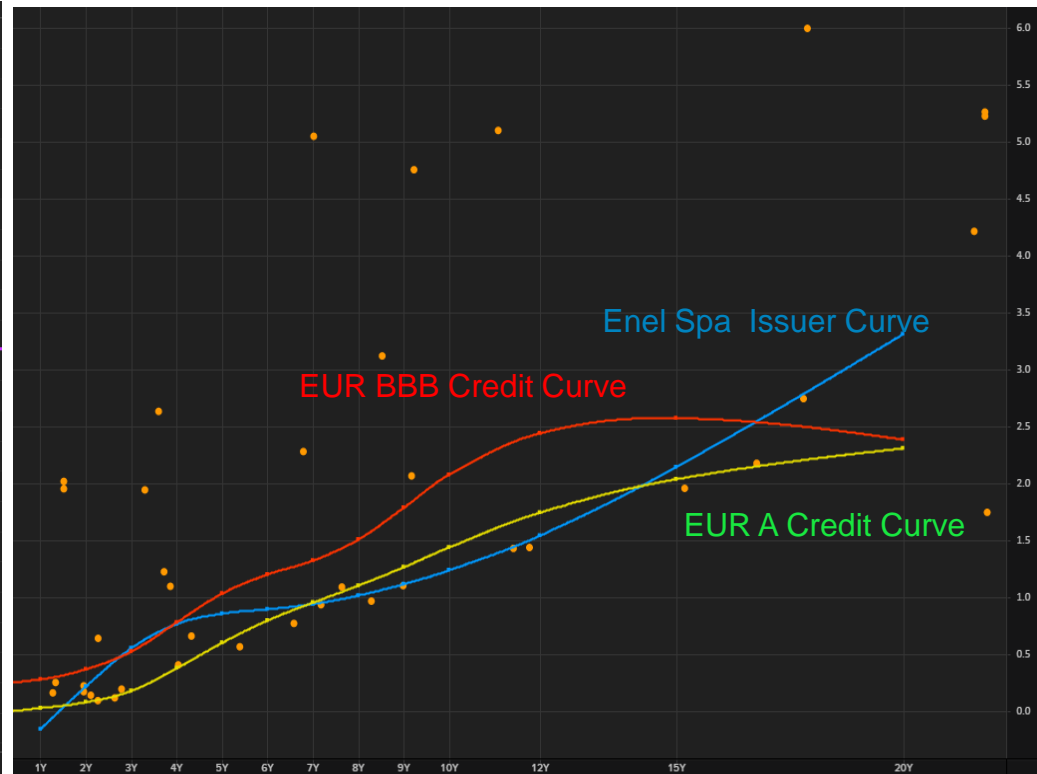
	Yield	Zero	Bmk Spread	Swap Spread	ASwp Spread	Z-Spread	Def Prob	Time/Date
3M	0.287	0.285	87.8	42.2	55.4	56.6	0.178	10:49/15MAR16
6M	0.700	0.699	118.5	83.5	86.3	90.1	0.555	10:49/15MAR16
1Y	0.503	0.503	97.9	63.8	64.5	66.1	0.814	10:49/15MAR16
2Y	0.717	0.718	118.1	85.7	83.9	86.4	2.113	10:49/15MAR16
3Y	1.008	1.012	145.0	109.3	108.2	111.5	4.050	10:49/15MAR16
4Y	1.195	1.202	155.4	121.1	119.4	123.5	5.914	10:49/15MAR16
5Y	1.340	1.350	160.1	126.1	124.0	128.6	7.628	10:49/15MAR16
6Y	1.522	1.538	173.3	133.3	131.3	136.7	9.629	10:49/15MAR16
7Y	1.736	1.764	184.8	143.1	140.8	147.4	11.987	10:49/15MAR16
8Y	1.957	2.001	195.3	152.8	150.4	158.5	14.562	10:49/15MAR16
9Y	2.153	2.214	199.9	161.0	158.3	167.6	17.142	10:49/15MAR16
10Y	2.303	2.380	201.9	164.8	162.7	173.1	19.459	10:49/15MAR16
12Y	2.510	2.611	206.4	168.3	165.4	177.7	23.448	10:49/15MAR16
15Y	2.779	2.924	218.1	174.4	173.8	188.6	30.188	10:49/15MAR16
20Y	3.267	3.566	240.3	211.9	208.3	227.4	46.438	10:49/15MAR16
25Y	3.609	4.072	266.8	240.4	238.2	259.9	62.534	10:49/15MAR16
30Y	3.517	3.813	250.2	233.2	228.7	248.8	66.434	10:49/15MAR16

EIKON TOOLS TO MONITORING AND ANALYSE : EXAMPLE

INTESA SANPAOLO CURVE vs EUR BBB FINANCIAL

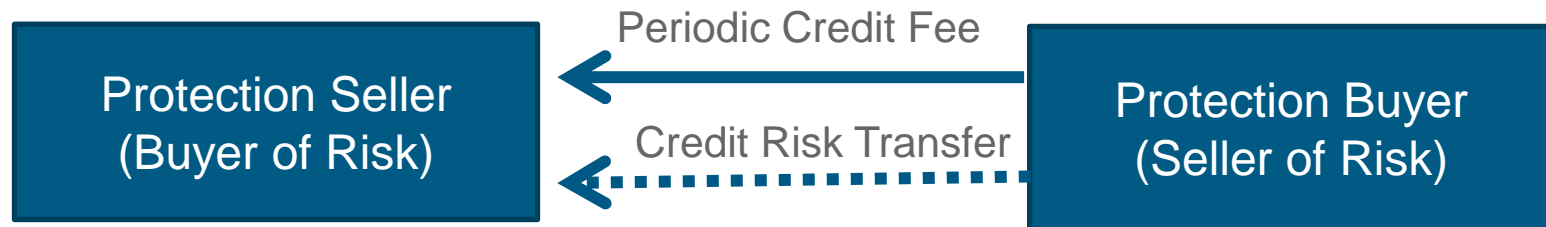


ENEL CURVE & SINGLE BONDS vs EUR BBB & A CORP CREDIT CURVE



Credit Default Swap

A credit default swap (CDS) is a particular type of swap designed to transfer the credit exposure of fixed income products between two or more parties.



In a credit default swap, the buyer of the swap makes payments to the swap's seller up until the maturity date of a contract. In return, the seller agrees that, in the event that the debt issuer defaults or experiences another credit event, the seller will pay the buyer the security's premium as well all interest payments that would have been paid between that time and the security's maturity date.

Credit Default Swap – Main Characteristics

Fixed Coupon:

- 25,100,500, 1000bp STEC – Standard European Contract
- 100, 500bps SNAC – Standard North American Contract

Standard Maturities:

- 20 March, June, September, December

Fixed Recovery:

- 20% Subordinated debt
- 40% Senior debt

ITOVSVUSACR	ITALY	USD		% Ch Summary
Latest Spread	PAR	Quote Conv	SPREAD	0 -0.35 % Net Chng -0.450
RISpreads	Contributor	Loc Time	Date	M -2.212 %
M 129.550	REUTERS EOD	EOD 00:55	10MAR16	M -8.62 % 82 Wk H: 155.930
M 130.030	REUTERS EOD	LON 23:00	09MAR16	O 40.66 %
M 130.030	REUTERS EOD	TOK 20:41	09MAR16	M 24.95 % 82 Wk L: 90.620
	Open			H 1.0
Official Close	129.550	09MAR16		
Par Spread	129.550	09MAR16		
Real Time Calculations				
Loc/Time/Date	EOD 00:55	10MAR16		
Coupon	Upfront (%)	ConvSpd		
25	4.739	130.84		
100	1.539	129.90		
500	-16.702	125.741		
CDS Spread Over:				
Rating				
Sector/Sub Sect				
CD DV01	+4931.0			
OffPar/DV01				
500 Cpr/100 Cpn	+5166.58	-4480.31		
RecovRate/Assumed	38.000 %			
DefProb/AllInns 2	9.690 %			
HistCorr 30/60/90	/			
Reference Bond				
Bon Swp A Swp	143.2			
C-SDG/SDG1	157.8	133.9		
	157.8	133.9		
Source				
IT085540828				
REUTERSCDSP				
Reuters EOD Composite				
CDS/ANALYTICS				
EOD Composite				
Composite				

Instrument: Single Name

Mode: **CDS Par** Display Mode: **Reduced Mode**

ISDA Standard Model

CDS Par

Main Cash Flows Bond From CDS ZC Curve ISDA ZC Curve Trade Ticket

CDS Details

Effective Date: **12 mar 2016** Tenor/Date: **5Y** Maturity Date: **20 mar 2021**

Frequency: **Quarterly** First Coupon Date: **21 mar 2016** Next-to-Last Coupon Date: **21 dic 2020**

Accrual Start: **21 dic 2015** Next Coupon Date: **21 mar 2016**

Pay Accrued at Start: **No** Pay Accrued on Default: **Yes** Day Count: **MM Act/360**

Seniority: **Senior** Doc Clause: **Mod-Mod Restruct** Currency: **EUR**

CDS Calculation

Trade Date: **11 mar 2016** Position: **Buy** Notional(EUR): **10,000,000.00**

Cash Settlement Date: **T+1 14 mar 2016**

Rec. Rate (%): **40,000**

Deal Spread (bp): **100,000** **Upfront (%)**: **1,11435019** **Price (%)**: **98,88564981**

CDS Par	Credit Curve
CDS Repl. Spread (bp): 122,989	Curve Date: 11 mar 2016 <input type="checkbox"/> Apply Flat Spread Curve: 122,989
Principal (EUR): -111,435,02	Contributor: Market Intraday <input type="checkbox"/> Use Custom Probabilities
82 Accrued: 22,777,78	ZC Curve: ISDA Curve
Cash Amount (EUR): -88,657	CCY: EUR
NPV (EUR): 0,00	Rec. Rate (%) 40,000
Sensitivities	
Spread DV01: 4,798,83	
IR DV01: -28,78	
Rec 01 (1%): -93,76	
Jump To Def: 5,888,565	

Credit Default Swap – Main Characteristics

Standard Credit Events

- **Bankruptcy** (Reference entity is insolvent or unable to pay)
- **Failure to Pay** (Reference entity fails to make payments when due after expiration of any appropriate grace period)
- **Restructuring** (A change in the terms of debt that is unfavourable to the creditor)
 - Modified Restructuring (MR): Caps the maturity of deliverable obligations at the earlier of 2.5y from restructuring date or the longest maturity of restructured bond or loan)
 - Modified Modified Rest. (MMR): Caps the maturity of deliverable obligations at the later of the CDS maturity and 5Y after the restructuring date.
 - No Restructuring (XR): Debt restructuring is not considered a credit event
 - Old Restructuring (R) No additional restrictions on deliverable obligations.
- **Obligation acceleration** (An obligation becomes due before it would otherwise have been because of a default.)
- **Repudiation/ Moratorium** (Reference entity announces repudiation or moratorium on obligations and subsequently fails to pay.)

Credit Default Swap – Main Characteristics

Settlements:

Cash Settlement via Auction

- Determines the Inside Market Midpoint
- Determines the Open Interest
- Matches Limit Orders to create live trades to buy and
- Determines Final Price

Physical Settlement

- Used to calculate the effective recovery rate

creditex

markit

Credit Event Fixings

Home

2016 Auctions

2015 Auctions



Ukraine			
Ukraine Auction Results, 06 October 2015			
CDS			
Final Results of the Ukraine CDS Auction, 06 October 2015			
Final Price: 80.625			
On 06 October 2015, 11 dealers submitted initial markets, physical settlement requests and limit Creditex and Markit to settle trades across the market referencing The Republic of Ukraine.			
Relevant Currency			
USD			
Auction Currency Rates			
USD/EUR	1.12735		
USD/USD	1.00000		
The inputs and results are detailed below.			
Dealer Initial Markets			
Dealer	Bid	Offer	Dealer
Barclays Bank PLC	78.5	80.5	Barclays Bank PLC
BNP Paribas	77.5	79.5	BNP Paribas
Citigroup Global Markets LTD	79.0	81.0	Citigroup Global Markets LTD
Credit Suisse International	78.5	80.5	Credit Suisse International
Deutsche Bank AG	79.0	81.0	Deutsche Bank AG
Goldman Sachs International	80.25	82.25	Goldman Sachs International
JPMorgan Chase Bank N.A.	79.25	81.25	JPMorgan Chase Bank N.A.
Merrill Lynch	78.5	80.5	Merrill Lynch
Morgan Stanley & Co. International PLC	78.875	80.875	Morgan Stanley & Co. International PLC
Nomura International PLC	78.25	80.25	Nomura International PLC
Société Générale	78.25	80.25	Société Générale
Initial Market Midpoint: 79.625			
Adjustment Amounts			
Goldman Sachs International USD 12,500			
Physical Settlement Requests			
Dealer	Bid/Offer	Size	
BNP Paribas	Offer	13.0	

Corporate Credit Default Swap: Monitoring real time risk

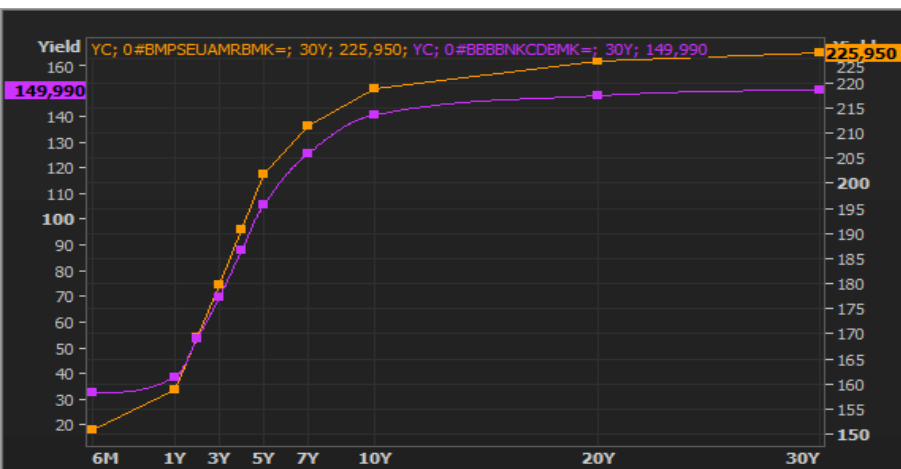
5Y CDS vs iTraxx Senior Financial Europe



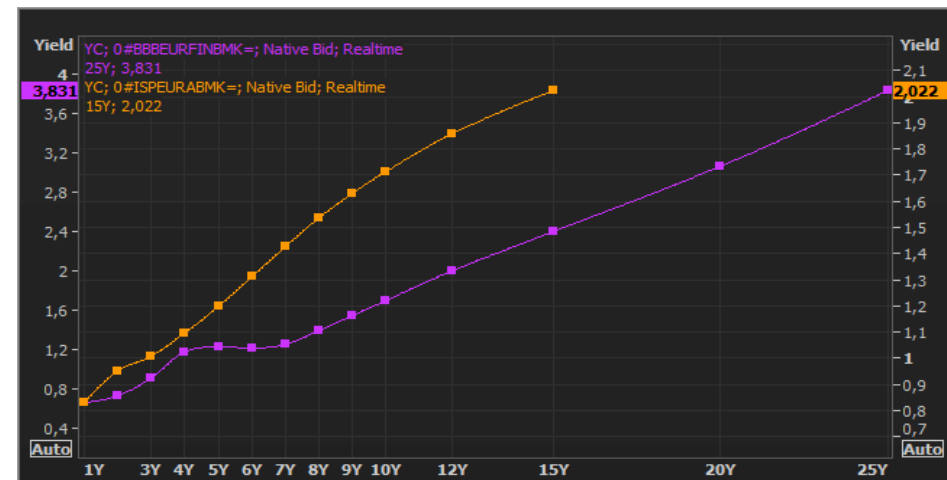
5Y CDS vs BBB & A 5Y Banking CDS



Company CDS curve vs BBB BANK CDS CURVE



ISSUER CURVE vs CREDIT CURVE



Corporate Credit Default Swap

BMPSJ LEAR Modified-Modified Restructuring (2014 Protocol), SNRFOR Italy/Euro
 BANCA MONTE DEI PASCHI DI SIENA SPA RED Code: TU29GI

Overview All Quotes Charts Reference Entity Calculators Related Instruments Research 360 Menu

OVERVIEW

LIQUIDITY INDICATORS (DTCC VOLUMES)

	(USD Equiv in MM's)	% chg
Gross Notional	16,397.13	-3.50
Net Notional	349.98	-1.70
No of Contracts	3,149.00	-2.00
Record Date	13-Mar-2015	

[Banca Monte dei Paschi di Siena SpA Liquid Bonds](#)

MARKIT EOD PRICING

Term	Tier	Doc Clause	Currency	Coupon	Official Close			Latest Price & Analytics						
					Official Par Close	Upfront	Conv Spread	Latest Par	1D% Chg	1W% Chg	1M% Chg	1Y% Chg	DefProb	Recovery Rate
5Y	SNRFOR	MM	EUR	100	19-Mar-2015			20-Mar-2015 / 10:20						
					200.045	4.817%	199.070	198.285	-1.830%	--	--	--	16.280%	40.000%
5Y	SUBLT2	MM	EUR	500	19-Mar-2015			20-Mar-2015 / 10:20						
					419.905	-3.348%	427.500	428.153	1.410%	--	--	--	25.057%	20.000%
10Y	SNRFOR	MM	EUR	100	19-Mar-2015			20-Mar-2015 / 10:20						
					221.275	10.132%	219.100	217.623	-1.820%	--	--	--	31.823%	40.000%
10Y	SUBLT2	MM	EUR	500	19-Mar-2015			20-Mar-2015 / 10:20						
					443.898	-3.854%	450.253	450.766	1.400%	--	--	--	44.856%	20.000%

THOMSON REUTERS EOD PRICING

Term	Tier	Doc Clause	Currency	Coupon	Official Close		Latest Price & Analytics						
					Official Par Close	Upfront	Latest Par	1D% Chg	1W% Chg	1M% Chg	1Y% Chg	Upfront	Conv Spread
5Y	SNRFOR	MM	EUR	100	19-Mar-2015		20-Mar-2015 / 00:55						
					201.760	201.760	1.240%	3.807%	-5.820%	-17.490%	4.983%	202.640	16.545%
5Y	SUBLT2	MM	EUR	500	19-Mar-2015		20-Mar-2015 / 00:55						
					421.310	421.310	0.590%	6.204%	-10.450%	0.630%	-3.675%	420.579	24.708%
10Y	SNRFOR	MM	EUR	100	19-Mar-2015		20-Mar-2015 / 00:55						
					218.880	218.880	1.270%	3.769%	-5.450%	-17.120%	10.223%	220.400	31.946%
10Y	SUBLT2	MM	EUR	500	19-Mar-2015		20-Mar-2015 / 00:55						
					218.880	218.880	1.270%	3.769%	-5.450%	-17.120%	10.223%	220.400	31.946%

ISSUER RATINGS (FOREIGN CURRENCY)

Rating Source	Rating	Rating Date
Fitch's Long-term Issuer Default Rating	BBB	06-Feb-2012
S&P's Long-term Issuer Rating	NR	14-Jun-2013

[More detail](#)

ENTITY INDEX MEMBERSHIP

- + iTraxx Europe
- + iTraxx Europe Senior Financials
- + iTraxx Europe Subordinate Financials

MARKIT ENTITY INFORMATION

<CSDINDEX> <SECTORCDS>

“CDS DASHBOARD” APP

Visualizza la quotazione intraday di Markit

<=MG>

Credit Risk Models

Credit risk is the risk of loss of principal or loss of a financial reward stemming from a borrower's failure to repay a loan or otherwise meet a contractual obligation. Credit risk arises whenever a borrower is expecting to use future cash flows to pay a current debt. Investors are compensated for assuming credit risk by way of interest payments from the borrower or issuer of a debt obligation.

Credit risk is closely tied to the potential return of an investment, the most notable being that the yields on bonds correlate strongly to their perceived credit risk.

RISK MODEL: A type of model used by financial institutions to determine the likelihood of a default on credit obligations by a corporation or sovereign entity. These statistical models often use regression analysis (analyzing changes to certain market variables that are pertinent to a company's financial situation) to identify credit risk.

Credit Risk: regulations

Basil II

CREDIT RATINGS AND THE STANDARDISED APPROACH TO CREDIT RISK IN BASEL II

- Standard (Standardized Approach)
- Foundation IRB
- Advanced IRB

IRB stands for "Internal Rating-Based Approach".

Basil III

Is a global, voluntary regulatory framework on bank capital adequacy, stress testing, and market liquidity risk

- Capital requirements
- Leverage ratio
- Liquidity requirements

.

ITALIAN REGULATION:

Bank of Italy, Consob, IVASS, ISVAP

Eg. Circolare n. 263 del 27 dicembre 2006 Nuove disposizioni di vigilanza prudenziale per le banche

- <http://www.bancaditalia.it/compiti/vigilanza/normativa/archivio-norme/circolari/c263/index.html>

StarMine Credit Risk Model

StarMine developed a proprietary corporate credit risk model suite including models assessing a company's default risk through both the accounting ratio analysis and the contingent claims analysis. In addition, StarMine's credit risk model suite includes a novel third approach that applies cutting-edge machine learning algorithms to mining textual data for information regarding a company's financial health. Each of these three powerful models provides unique insights into a company's credit default risk:

StarMine Structural Credit Risk Model (StarMine SCR) evaluates credit risk from the equity market's view via StarMine's proprietary extension of the Merton structural default prediction framework that models a company's equity as a call option on its assets.

StarMine SmartRatios Credit Risk Model (StarMine SRCR) utilizes financial ratio analysis for credit risk assessment and incorporates both reported information and forward-looking estimates via the StarMine SmartEstimate.

StarMine Text Mining Credit Risk Model (StarMine TMCR) mines the language in textual data from multiple sources (Reuters News, StreetEvents conference call transcripts, corporate filings, and select broker research reports) to evaluate companies' potential financial distress.

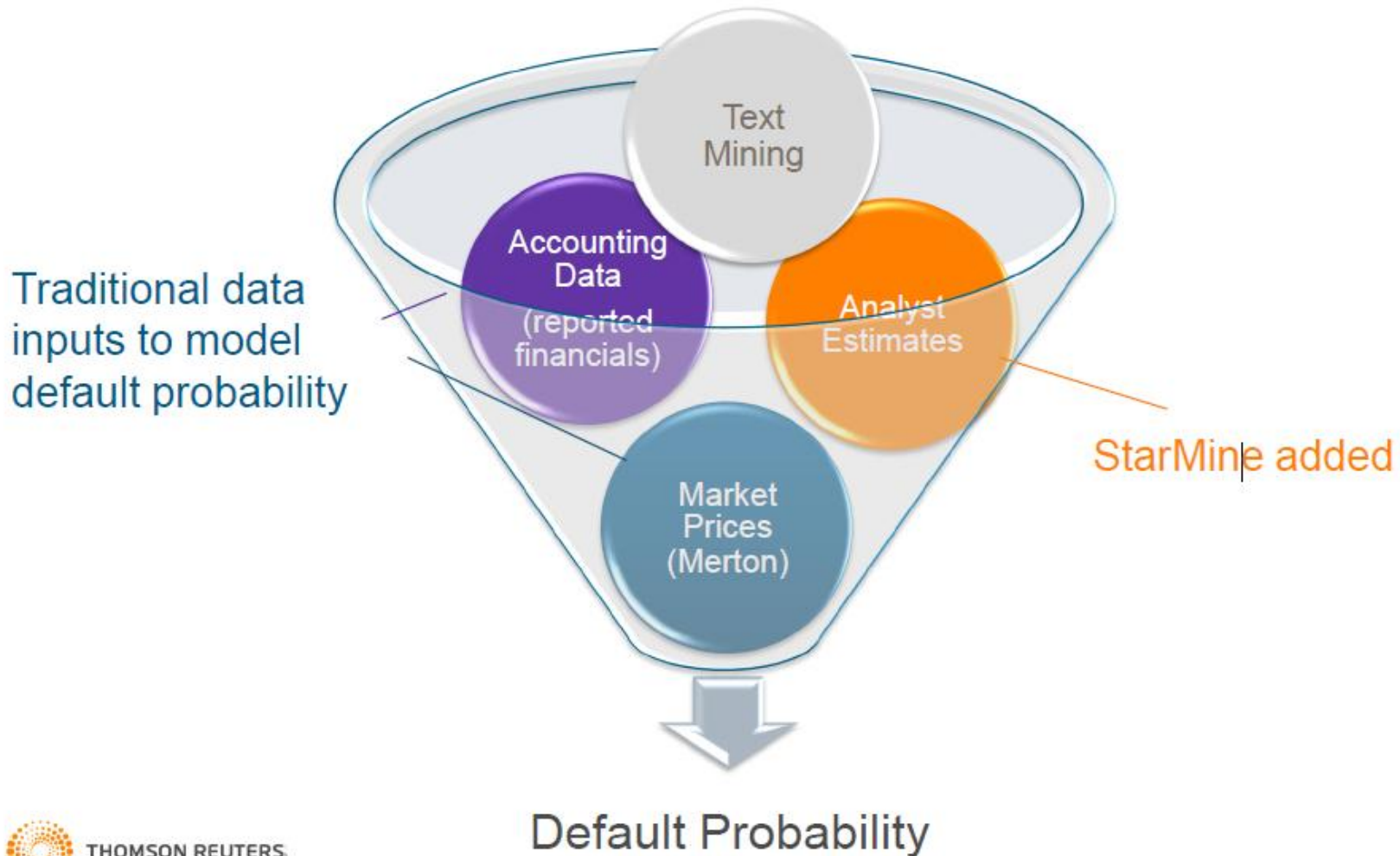
StarMine Credit Risk Model

StarMine Credit Risk Models

- Structural Model
 - Leverage
 - Volatility
 - Asset Drift
- SmartRatios Model
 - Profitability
 - Leverage
 - Coverage
 - Liquidity
 - Growth
- Text Mining Model
 - StreetEvents
 - Filings
 - Reuters News
 - Broker research

Combined Model

STARMINE Credit Risk Model: ingredients

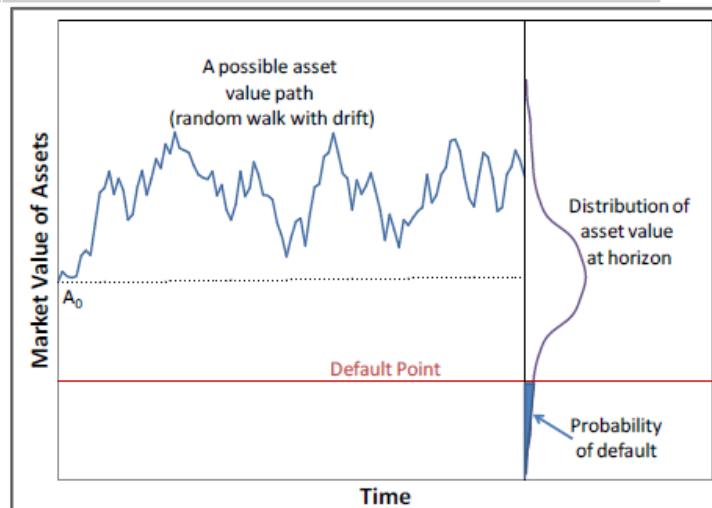


StarMine Credit Risk Model: Structural

Structural Default Probabilities Framework

Input	Effect on default probability
Leverage (assets/liab)	Higher leverage increases default %
Volatility of assets	Higher asset volatility increases default %
Drift rate of assets	Higher growth rate decreases default %

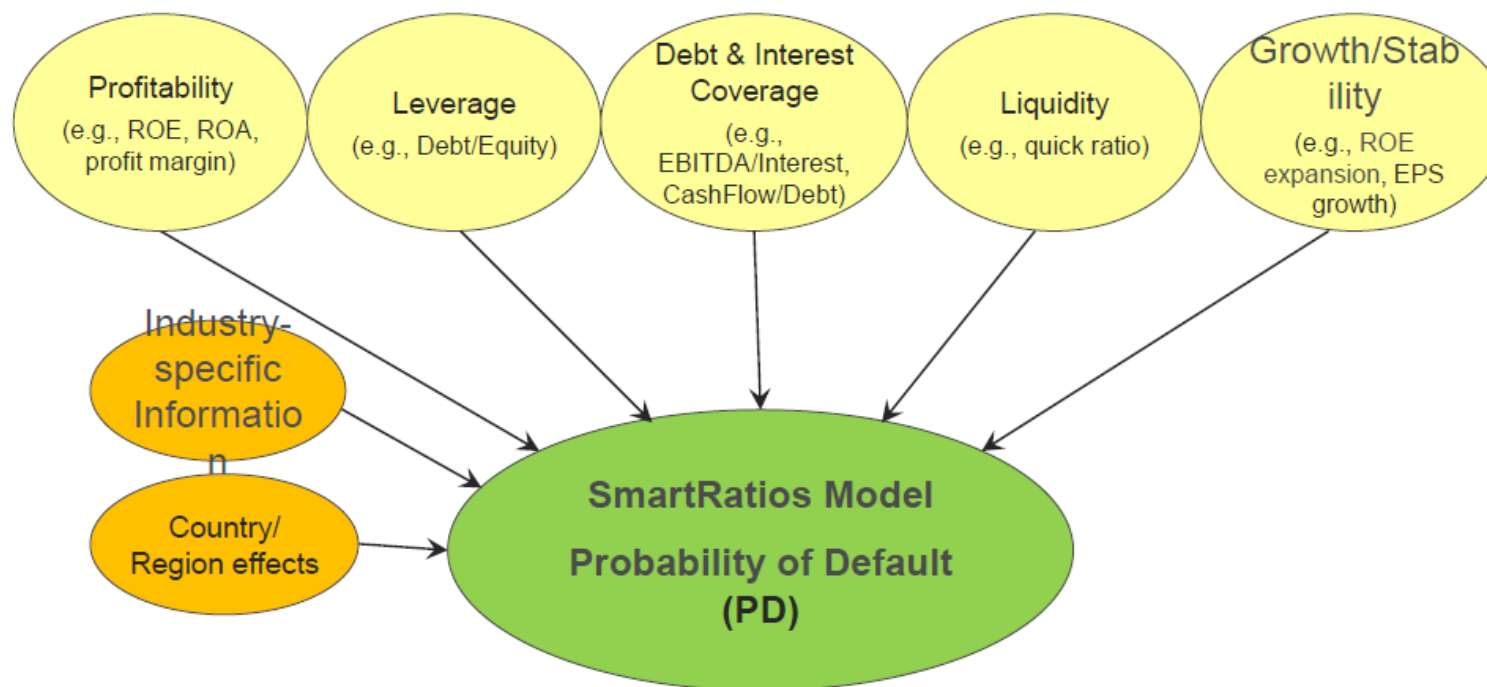
- Based on the Black-Scholes option pricing framework
- Models a company's equity as a call option on its assets.
- Probability of default (DP) equates to the probability that the option expires worthless.
- 1-year forecast horizon



StarMine SCR is our proprietary extension of the “structural” default prediction framework introduced by Robert Merton (1974). The Merton distance-to-default model builds on the Black-Scholes option pricing framework and models a company’s equity as a call option on its assets. In this framework, the probability of default (PD) equates to the probability that the option expires worthless. The Merton model can be used to infer the probability that a corporation will go bankrupt, or default on its debts, within a given time horizon. StarMine SCR uses a 1-year forecast horizon.

StarMine Credit Risk Model: SmartRatios

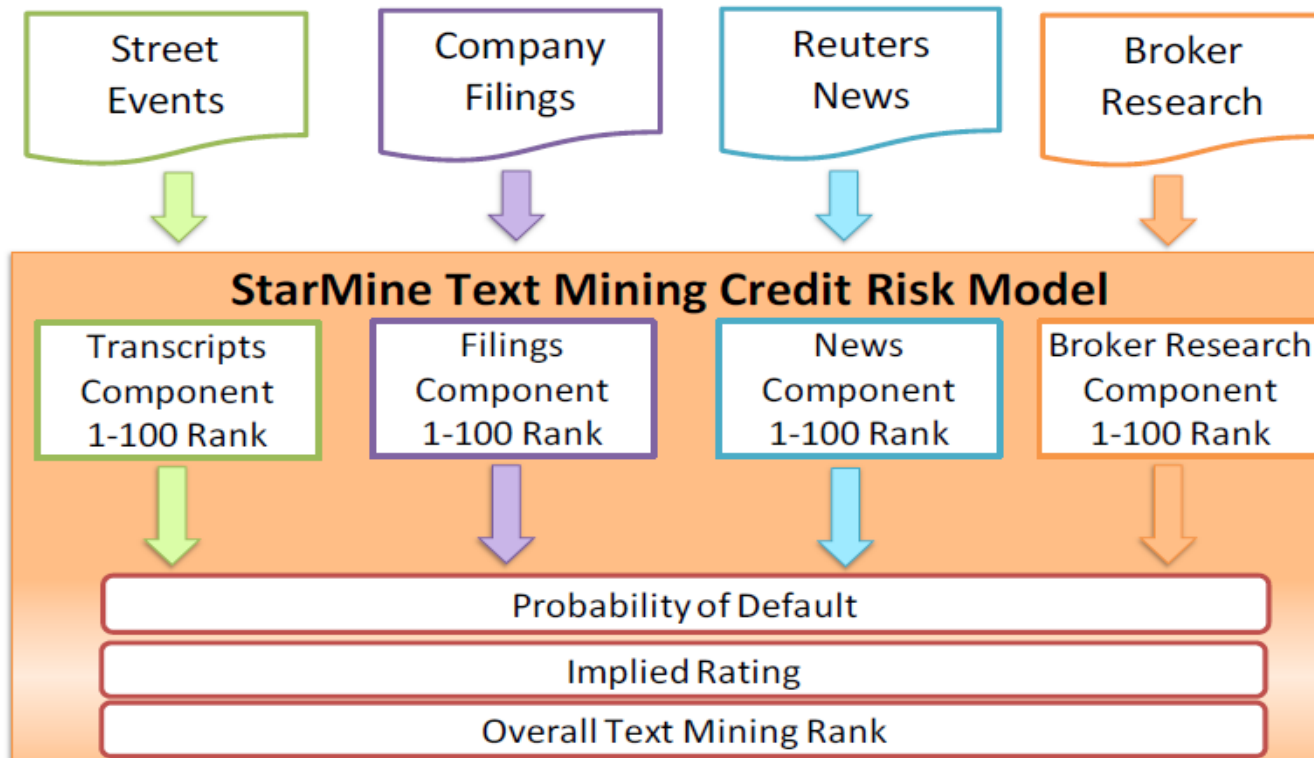
SmartRatios Default Probabilities Framework



StarMine groups financial ratios into five components and account for country and industry effects.

StarMine Text Mining Credit Risk (TMCR)

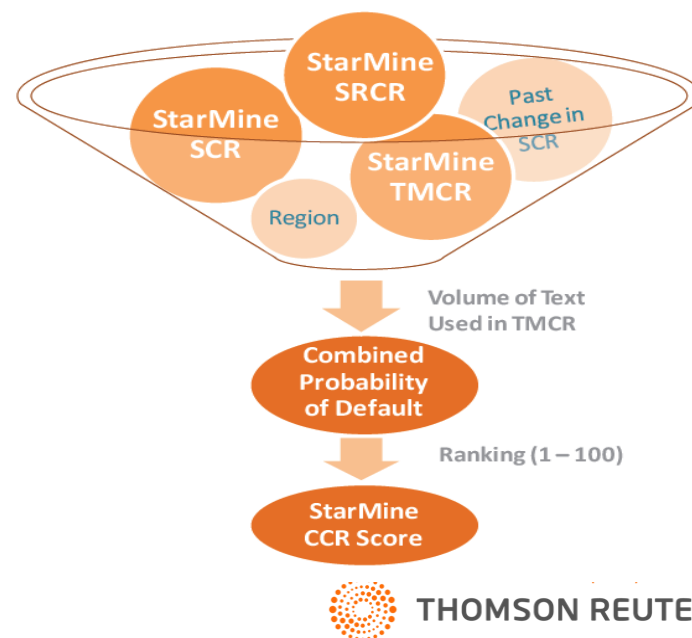
Each document is sourced independently and then combined to create an overall probability of default



StarMine Credit Risk Model: Combined

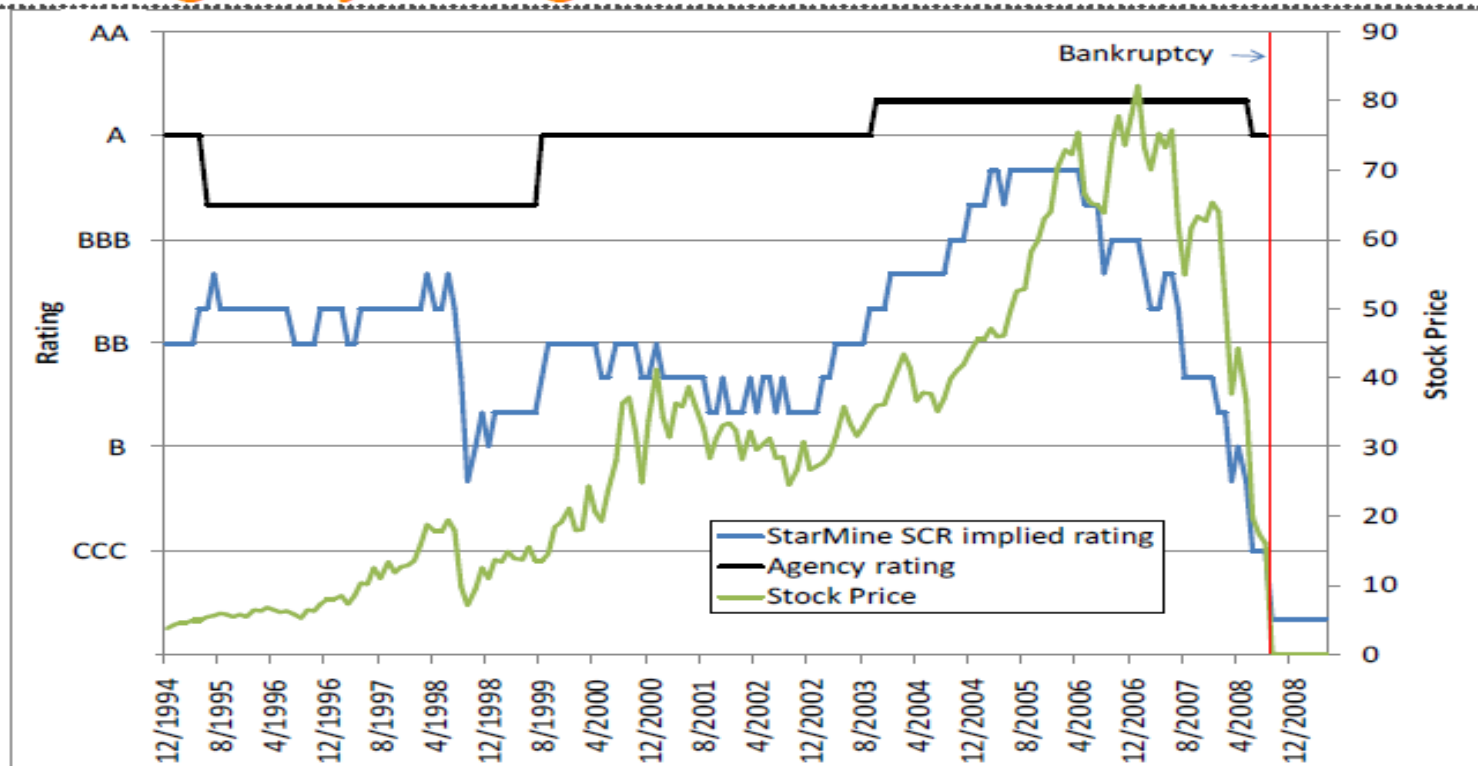
StarMine Combined Credit Risk Model (CCR)

- Incorporates information from the Structural, SmartRatios, and Text Mining Credit Risk Models
- StarMine CCR makes use of information from whichever of the three models is available for a given company, but **requires only one to produce its final default probability estimate and score.**
- StarMine CCR uses a logistic regression framework in which the **weights partitioned to the Text Mining model and the other two models are conditioned on the volume of text on a given company.** The weight on the Text Mining model increases with increasing text volume. In this way CCR puts the most weight on the models that are most effective for a given company.



StarMine Credit Risk Model: Lehman Case

Leading up to the Lehman bankruptcy, StarMine SCR was considerably more timely than agency ratings.

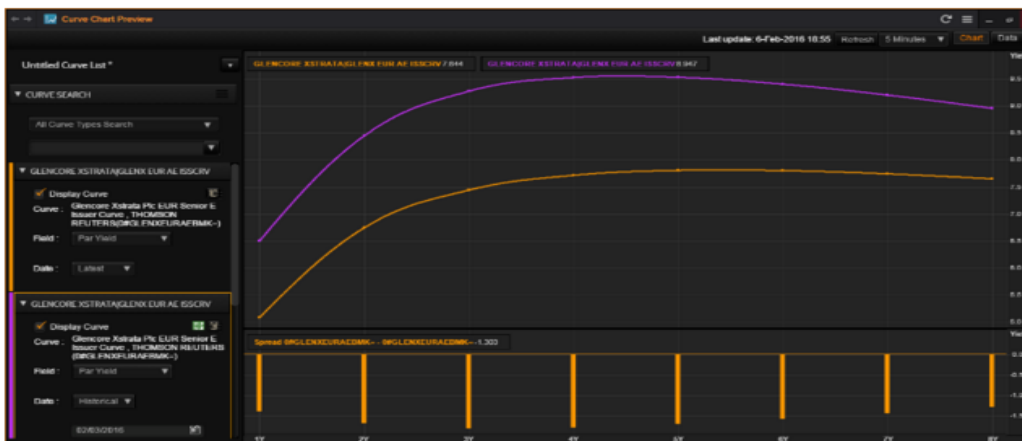


StarMine Credit Risk Model: Glencore Case

<http://lipperalpha.financial.thomsonreuters.com/2015/10/commodity-price-slide-putting-pressure-on-glencores-credit-outlook/>



"The StarMine Combined Credit Risk model (CCR) gives Glencore a bottom percentile rank of 1, relative to all other companies in the Developed Europe region. It also assigns a letter grade equivalent for our credit risk score of CCC+, much lower than the S&P credit rating of BBB, the second lowest investment grade rating.

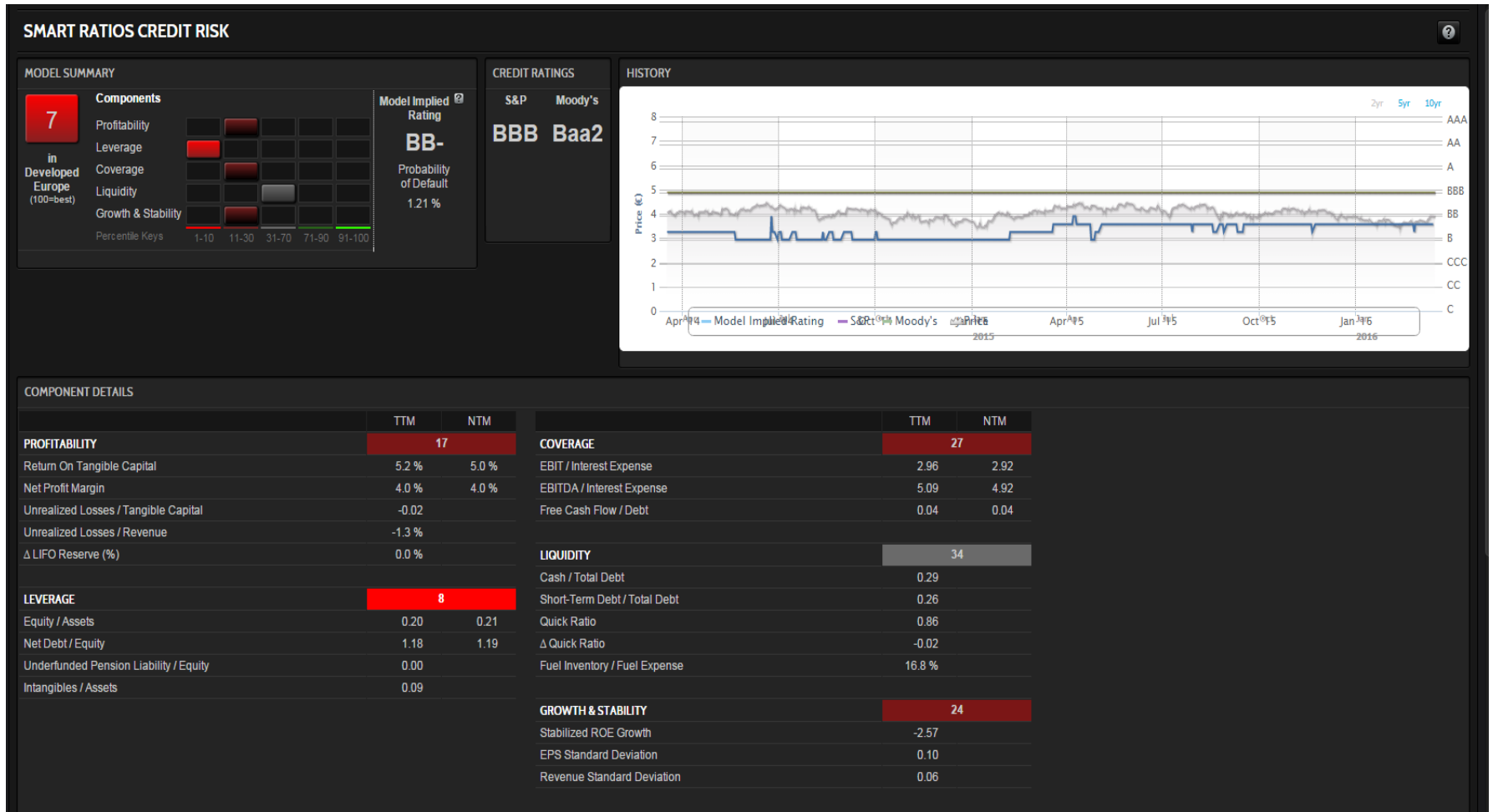


On Feb 4 2016 S&P cuts Glencore rating to BBB- (no changes had happened since Nov 2012)

Have a look also on the change in Glencore Debt Issuer Curve following the event (Orange line refers to Feb 3 vs latest curve)

EIKON TOOLS TO MONITORING AND ANALYSE CORPORATE CREDIT RISK

SRCR – SMART RATIOS MODEL



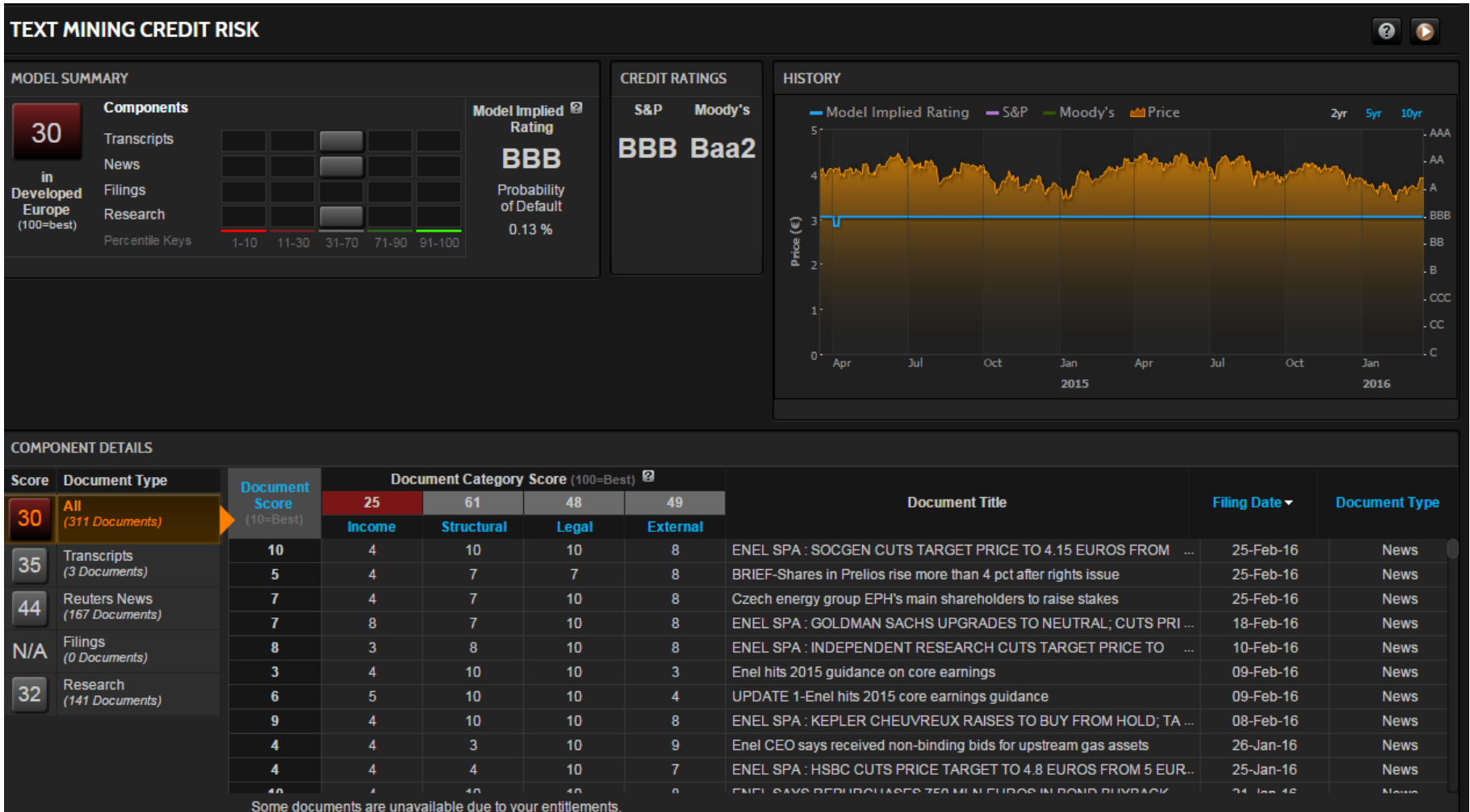
EIKON TOOLS TO MONITORING AND ANALYSE CORPORATE CREDIT RISK

SCR – Structural Model



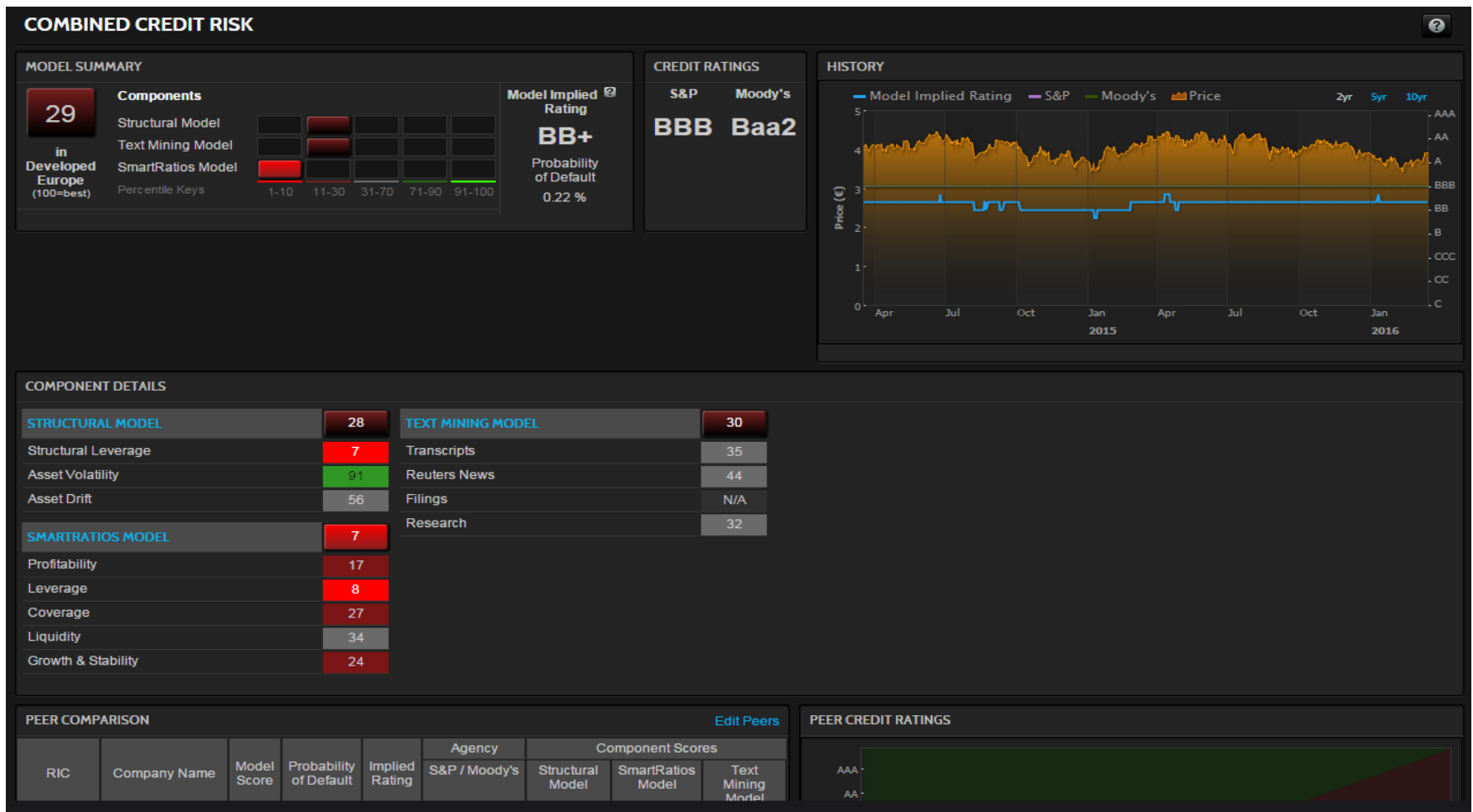
EIKON TOOLS TO MONITORING AND ANALYSE CORPORATE CREDIT RISK

TMCR: TEXT MINING



EIKON TOOLS TO MONITORING AND ANALYSE CORPORATE CREDIT RISK

CCR: COMBINED MODEL



Thomson Reuters Web Page for Tor Vergata

FINANCIAL & RISK TRAINING

Eikon - Version 4

- Thomson Reuters Eikon
- Discover Thomson Reuters Eikon
- Your Training Sessions
- Your Contacts
- Training Videos
- Stay Mobile
- Stay Social
- Interested In Thomson Reuters World?



Getting Started Training

Learn the Basics

Training by Market Segment

Thomson Reuters Certification

ABOUT YOUR DEPARTMENT OF ECONOMICS AND FINANCE TRAINING PAGE

Welcome to your Department of Economics and Finance training page. Here you will find useful resources for Thomson Reuters Eikon, powerful guides and videos, training schedules and the contact information to get technical and content support!

DISCOVER THOMSON REUTERS EIKON



YOUR TRAINING SESSIONS



YOUR CONTACTS



TRAINING VIDEOS



THOMSON REUTERS CERTIFICATION



<http://training.thomsonreuters.com/torvergata>

THANK YOU

For Your Time

