

European High Yield & Leveraged Loan Report

European Leveraged Finance

Q3: 2018



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Highlights and Market Environment

Highlights

Issuance Highlights

European leveraged finance issuance (leveraged loans and high yield bonds) decreased to €44.8 billion in 3Q'18, a 26.2% decrease from €60.7 billion in 2Q'18 and a 13.9% decrease from €52.0 billion in 3Q'17. The issuance volume for 3Q'18 was the lowest quarterly total since 1Q'16. This quarterly decrease was driven equally by a decrease of leveraged loan and high yield bonds issuance. The high yield bond share of leveraged finance market issuance decreased to 39.5% in 3Q'18, down from 41.0% in 2Q'18 and up from 37.3% in 3Q'17.

Market and Economic Environment

According to the October 2018 European Central Bank lending survey, credit standards continued to ease and demand increased for all loan categories.

Credit standards for all three loans categories: loans to enterprises, housing loans and consumer credit, eased during the third quarter of 2018. Banks reported that competitive pressure (particularly from other banks), as well as lower risk perceptions relating the general economic situation and borrowers' creditworthiness were the main factors contributing to easing of credit standards in 3Q'18.

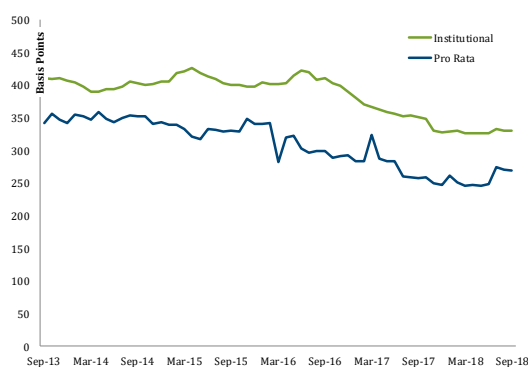
Banks' overall terms on new loans continued to ease across all loan categories in 3Q'18, driven mainly by a narrowing of margins on average loans.

Net demand for loans to enterprises, housing loans and consumer credit continued to increase in the third quarter of 2018. Fixed investment, working capital, M&A activity and the low level of interest rates were the main drivers in increasing demand for loans to enterprises. Net demand for housing loans eased slightly in 3Q'18 and was driven mainly by competitive pressure from other banks and non-banks, as well as lower risk perceptions relating to the general economic situation and housing market prospects.

“European leveraged finance issuance (leveraged loans and high yield bonds) totaled €44.8 billion in 3Q'18”

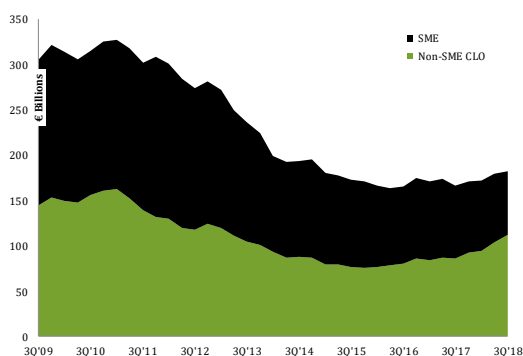
“Leveraged loan issuance totaled €27.1 billion on 43 deals in 3Q’18”

Leveraged Loan Spreads



Source: Dealogic, AFME, SIFMA

European CLO Outstanding



Source: AFME, SIFMA

Issuance

Issuance: Leveraged Loans

Leveraged loan issuance, including first lien, second lien, and mezzanine financing, decreased to €27.1 billion in the third quarter of 2018, a 24.5% decrease from €35.8 billion in 2Q’18 and a 16.9% decrease from €32.6 billion in 3Q’17.

Most of the leveraged loans issued in 3Q’18 were 1st lien loans (€26.0 billion or 96.2% of total). Seven 2nd lien loans (€1.0 billion) and no mezzanine loans were financed in 3Q’18.

Pricing spreads for institutional loans widened by 4 basis points (bps) q-o-q but tightened by 21 bps y-o-y while spreads for pro rata loans widened by 21 bps q-o-q and by 11 bps y-o-y.

Only €0.5 billion of amend-and-extend (“A&E”) loans were financed in 3Q’18, an 83.1% decrease from €3.0 billion in 2Q’18 but up fivefold from €0.1 billion in 3Q’17. No loans had been amended to reduce pricing in the third quarter of 2018, down from €7.0 billion in 2Q’18 and from €0.9 billion in 3Q’17.

The top three sectors in leveraged loan issuance in 3Q’18 accounted for almost 60% of leveraged loan issuance; the leading sector was chemicals (€6.7 billion or 24.7% of total), followed by healthcare (€5.4 billion, 19.9%), and professional services (€4.1 billion, 15.1%), with the balance split between 13 other sectors.

Over half (56.8%) of deals financed in the third quarter of 2018 were for leveraged buyouts, up from 29.9% in 2Q’18 and from 32.6% in 3Q’17. Leveraged buyouts were the largest use of proceeds in 3Q’18 with €15.4 billion, followed by acquisitions with €6.7 billion or 24.7% of total, and refinancing and/or repayment of debt with €2.6 billion or 9.7% of total.

European CLO outstandings, including SME deals, increased by 8.1% to €182.4 billion in 3Q’18 from €179.8 billion in 2Q’18 and by 9.7% from €166.3 billion in 3Q’17. Non-SME CLOs outstanding increased to €112.4 billion in 3Q’18, up 8.1% from €104.0 billion in 2Q’18 and up 31.5% from €85.5 in 3Q’17. SME CLOs outstanding decreased to €69.9 billion in 3Q’18, down 7.7% from €75.8 in 2Q’18 and down 13.4% from €80.8 billion in 3Q’17.

“Primary high yield issuance totaled €17.7 billion on 46 deals in 3Q’18”

Issuance: High Yield Bonds

Primary high yield issuance totaled €17.7 billion on 46 deals in 3Q’18, a 28.8% decrease from €24.9 billion on 60 deals in 2Q’18 and a 8.8% decrease from €19.4 billion on 51 deals in 3Q’17. In developed market Europe, €17.4 billion of high yield bonds were issued, down 24.5% from €23.1 billion in 2Q’18 but up 17.0% from €14.9 billion in 3Q’17. High yield bond issuance in emerging market Europe decreased to €0.3 billion in 3Q’18, down 83.2% from €1.8 billion in 2Q’18 and down 93.4% from €4.5 billion in 3Q’17.

In the third quarter of 2018, average deal size in developed market Europe decreased by 6.1% to €386.9 million from €412.0 million in 2Q’18 but increased 9.2% from €354.2 million in 3Q’17. Average deal size in emerging market Europe decreased by 33.0% to €300.0 million in 3Q’18 from €447.7 million in 2Q’18 and by 40.5% from €503.8 million in 3Q’17.

High yield issuance for refinancing and/or repayment of debt in developed market Europe decreased to €5.2 billion in 3Q’18, representing 29.7% of all issuance, a decrease of 3.8% from €5.4 billion (23.3% of total) in 2Q’18 but an increase of 97.5% from €2.6 billion (17.6% of total) in 3Q’17. In emerging market Europe, no high yield debt was issued for refinancing and/or repayment purposes in the third quarter of 2018, a decrease from €0.3 billion (14.0% of total) in 2Q’18 and unchanged from no bonds issued for these purposes in 3Q’17.

Three sectors accounted for over 40% of the total high yield issuance volume in 3Q’18: the telecommunication sector led issuance with €3.6 billion (20.3% of total), followed by chemicals with €2.0 billion (11.4% of total), and transportation with €1.9 billion (10.8% of total), all of such issuance being in developed market Europe. In emerging market Europe only one deal was financed in 3Q’18 and it was in the retail sector.

The proportion of USD-denominated issuance decreased to 20.3% of all issuance in 3Q’18, down from 21.9% in 2Q’18 but up from 18.2% in 3Q’17. USD-denominated issuance in developed market Europe decreased to €3.5 billion, or 20.6% of issuance, down 12.6% from €4.1 billion (17.8% of total) in 2Q’18 but up over twofold from €1.6 billion (10.9% of total) in 3Q’17. Of high yield bonds issued in emerging market Europe, no deals were denominated in USD, down from €1.3 billion (74.9% of total) in 2Q’18 and down from €1.9 billion (42.0% of total) in 3Q’17.

“S&P 500 led returns in 3Q’18 with 7.2% q-o-q”

Returns & Credit Quality

Thirteen of the analysed asset classes recorded positive returns in the third quarter of 2018. S&P 500 Index led quarterly returns with an increase of 7.2% in 3Q’18, followed by Russel 2000 Index with a 3.3% gain and U.S. High Yield Index with a 2.4% gain. The worst performing asset class remained MSCI Emerging Market Index with a decrease of 2.0% in 3Q’18, followed by European High Yield CCC and Lower Rated Index with a 1.8% decline, and U.S. Treasuries with a 0.7% decline.

As of September 2018, S&P reported the trailing 12-month speculative-grade default rate at 2.1%, an increase from 1.8% end-June 2018 but a decrease from 2.2% end-September 2017. Moody’s reported the trailing 12-month speculative-grade default rate in September 2018 to be 2.0%, down from 2.5% end-June 2018 and from 2.8% end-September 2017.

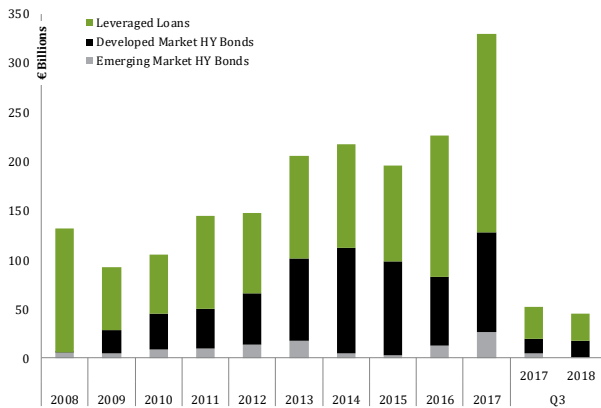
“Six European high yield bond issuers defaulted in 3Q’18”

Six bond-related defaults were reported in the third quarter of 2018, four in developed market Europe and two in emerging market Europe. The most common reason for default in 3Q’18 was a missed debt payment.

According to Standard and Poor’s, in 3Q’18 upgrades exceeded downgrades in developed market Europe (19 upgrades to 17 downgrades), a slightly worse ratio than 31 upgrades to 26 downgrades in 2Q’18 but better than 24 upgrades to 23 downgrades in 3Q’17. In emerging market Europe, there were 2 upgrades and 7 downgrades by S&P in 3Q’18 compared to 4 upgrades and 5 downgrades in 2Q’18 and 5 upgrades and 2 downgrades in 3Q’17. Four sectors accounted for over a third of all the rating actions in 3Q’18: banks led the number of rating actions (total of 3 upgrades and 2 downgrades), followed by financial institutions (2 upgrades and 2 downgrades), retail/restaurants (0 upgrades and 4 downgrades) and telecommunications (0 upgrades and 4 downgrades).

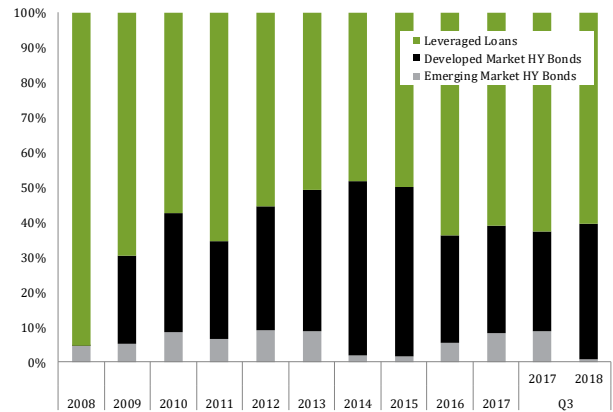
1 Leveraged Finance Overview

1.1 European Leveraged Issuance by Type



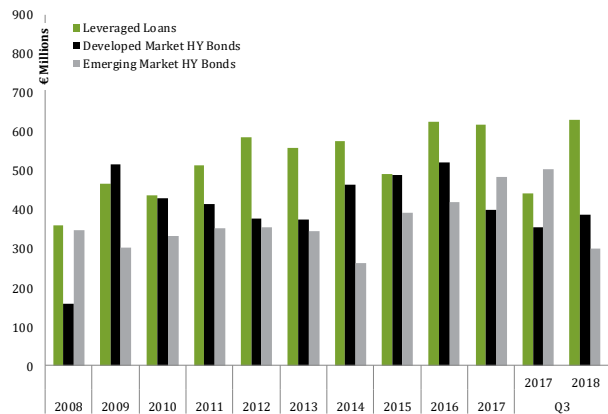
Source: Dealogic

1.2 European Leveraged Issuance Percentage



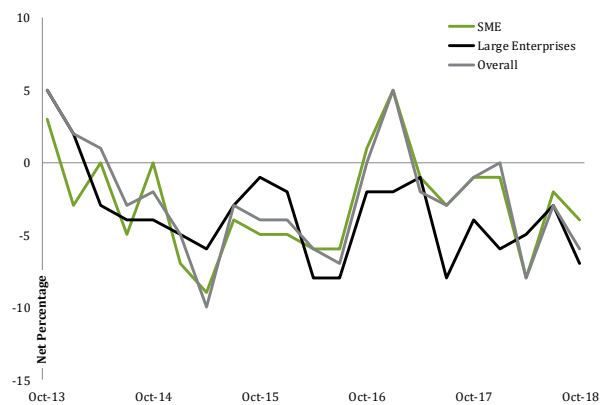
Source: Dealogic

1.3 European Leveraged Average Deal Size



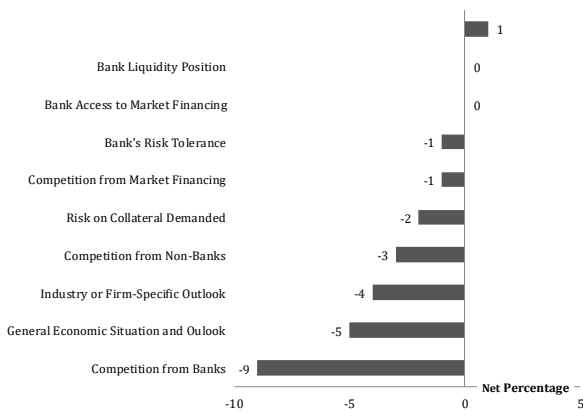
Source: Dealogic

1.4 Bank Credit Standards¹



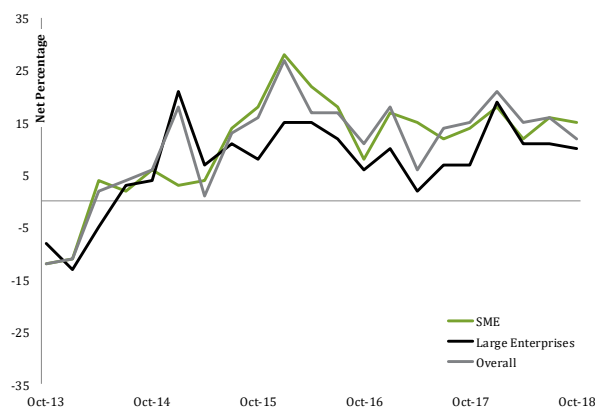
Source: European Central Bank

1.5 Factors Affecting Bank Credit Standards: October 2018²



Source: European Central Bank

1.6 European Leveraged Issuance Percentage³



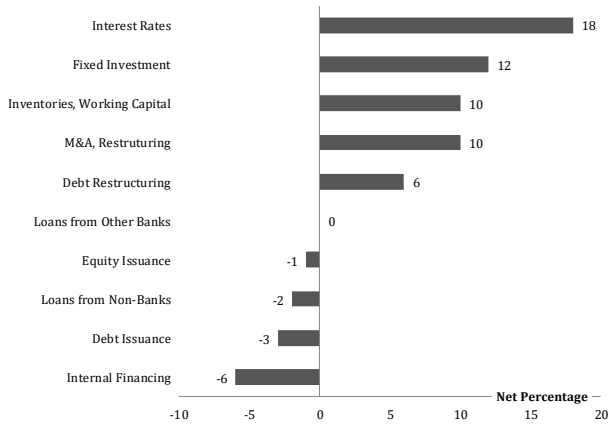
Source: European Central Bank

¹ A positive net percentage number signifies tightening bank credit; a negative net percentage number signifies easing credit.

² A positive net percentage signifies the factor contributed to tightening credit standards; a negative net percentage signifies the factor contributed to easing credit standards.

³ A positive net percentage signifies increased demand; a negative net percentage signifies decreased demand.

1.7 Factors Affecting Loan Demand: October 2018⁴



Source: European Central Bank

1.8 Global Comparison – High Yield Issuance

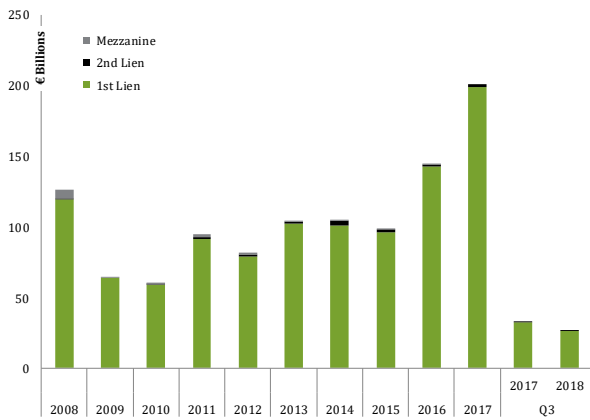
€ Billions	2018			2017					Prior Years			
	Q1	Q2	Q3	Q1	Q2	Q3	Q4	Full Year	2016	2015	2014	2013
United States	38.4	32.1	34.9	58.5	62.6	51.2	48.0	220.3	192.0	187.6	164.4	180.1
Europe	24.8	24.9	17.7	35.3	34.5	19.4	38.6	127.9	82.1	97.8	112.4	101.1
Asia Pacific	18.5	12.7	8.1	20.2	23.2	21.7	11.2	76.3	27.1	25.2	27.1	31.2

Source: Dealogic

⁴ A positive net percentage signifies a factor that contributed to higher demand; a negative net percentage signifies a factor that contributed to lower demand.

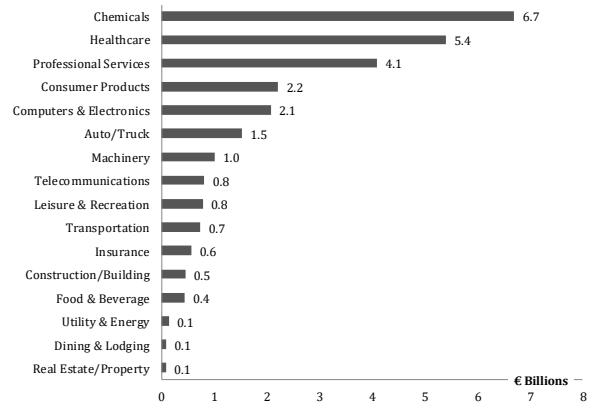
2 Issuance – Leveraged Loans

2.1 European Leveraged Loan Issuance By Type



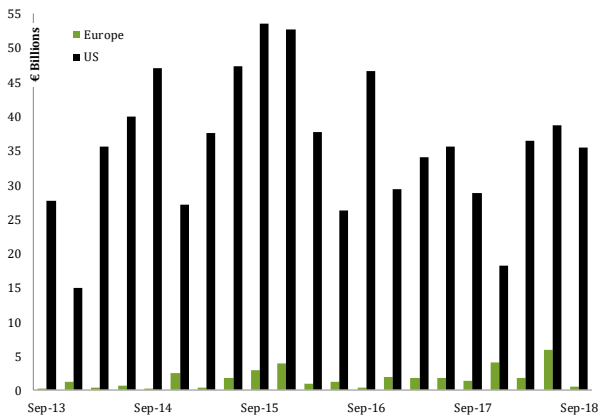
Source: Dealogic

2.2 European Leveraged Loan Issuance by Industry: 3Q 2018



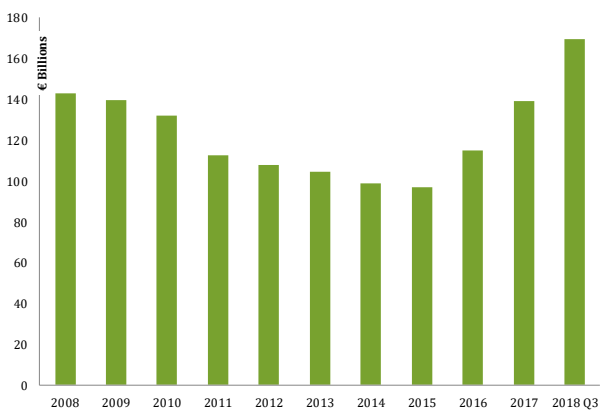
Source: Dealogic

2.3 Forward Pipeline of Leveraged Loan Market



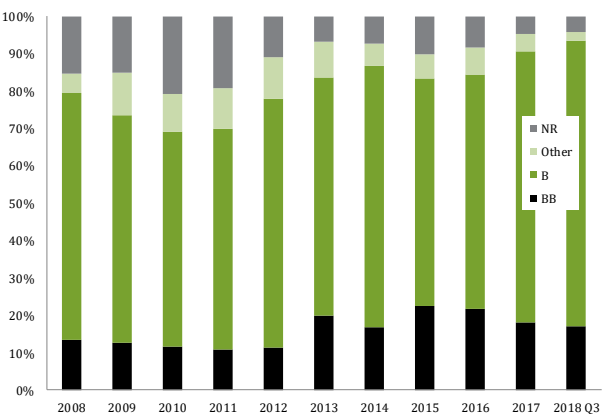
Source: Standard & Poor's LCD

2.4 ELLI Total Institutional Loans Outstanding



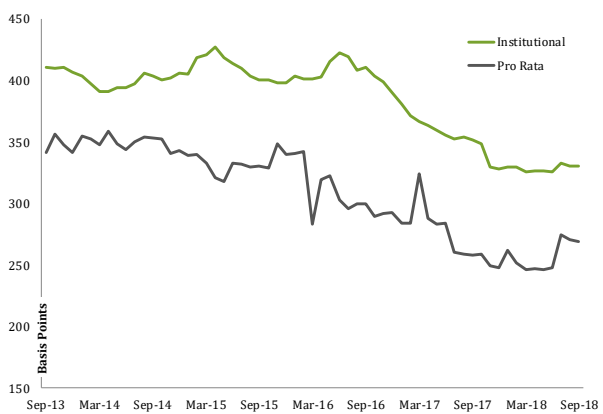
Source: Standard & Poor's LCD

2.5 ELLI Ratings Diversification



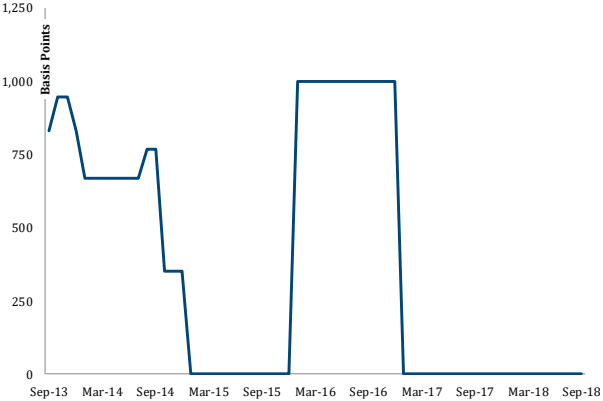
Source: Standard & Poor's LCD

2.6 Institutional and Pro Rata Spreads



Source: Dealogic, AFME, SIFMA

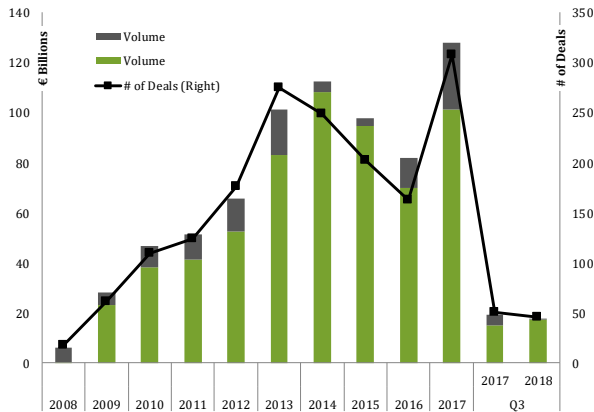
2.7 Mezzanine Spreads



Source: Dealogic, AFME, SIFMA

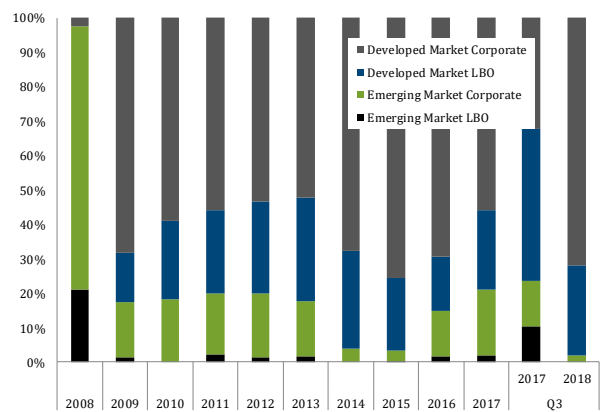
3 Issuance – High Yield Bonds Overview

3.1 European High Yield Issuance



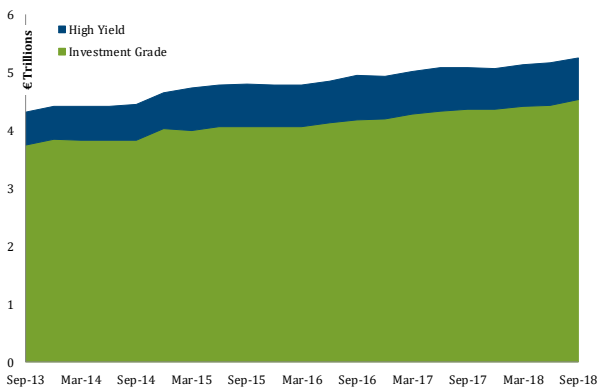
Source: Dealogic

3.2 European High Yield Issuance by Sponsor



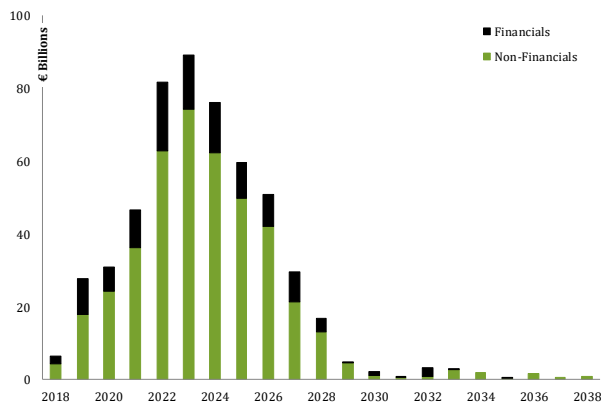
Source: Dealogic

3.3 European Corporate Bonds Outstanding (IG and HY only)



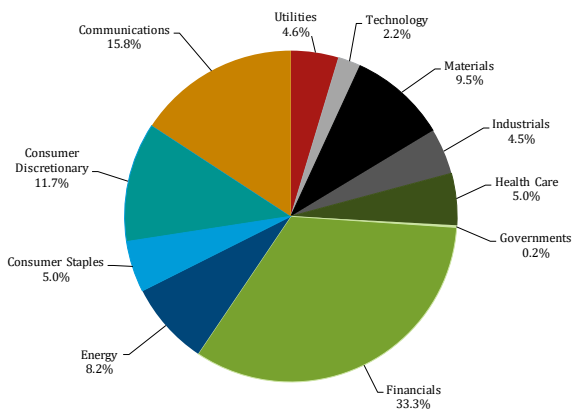
Source: Bloomberg, AFME, SIFMA

3.4 European Corporate Bonds HY Maturity Wall: 3Q 2018



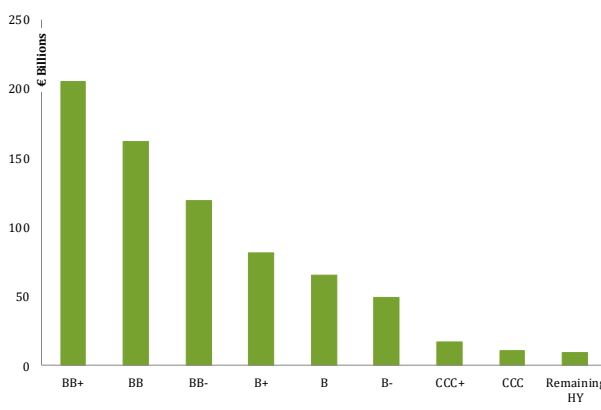
Source: Bloomberg, AFME, SIFMA

3.5 European Corporate HY Bonds Outstanding by Sector: 3Q 2018



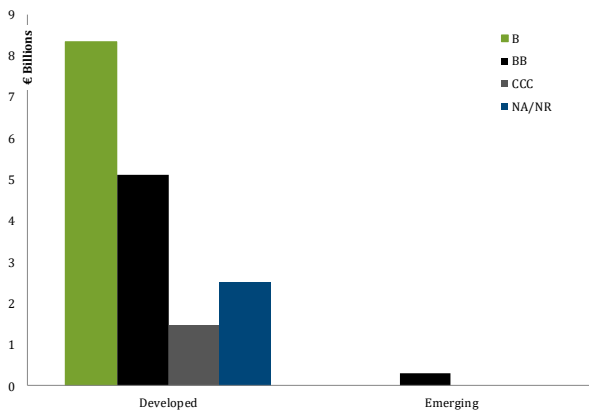
Source: Bloomberg, AFME, SIFMA

3.6 European Corporate HY Bonds Outstanding by Current Rating: 3Q 2018



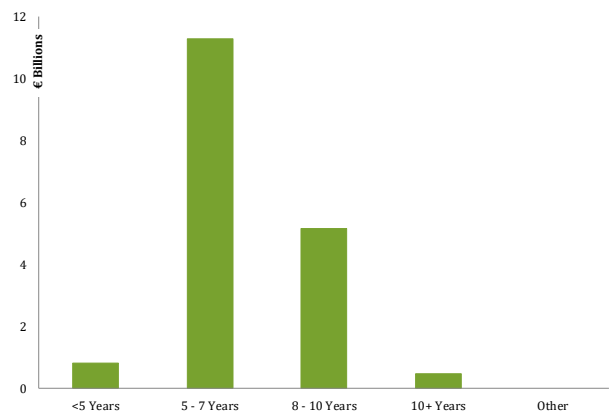
Source: Bloomberg, AFME, SIFMA

3.7 European Corporate Bond Issuance by Rating: 3Q 2018



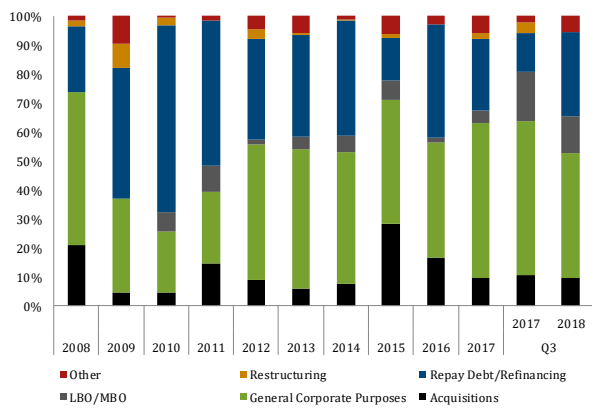
Source: Dealogic, AFME, SIFMA

3.8 European Corporate Bond Issuance by Tenor: 3Q 2018



Source: Dealogic, AFME, SIFMA

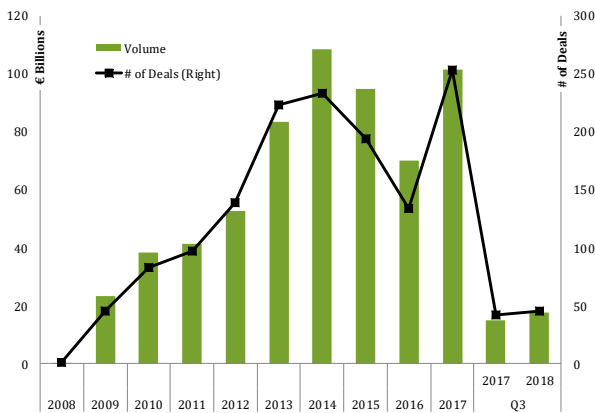
3.9 European HY Use of Proceeds



Source: Dealogic, AFME, SIFMA

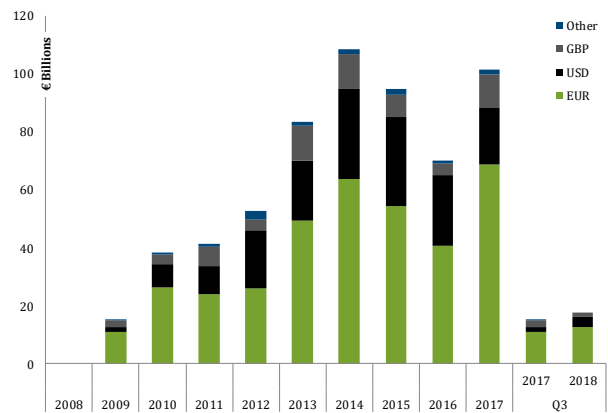
4 Issuance – European Developed Market High Yield Bonds

4.1 European Developed Market HY Bond Issuance



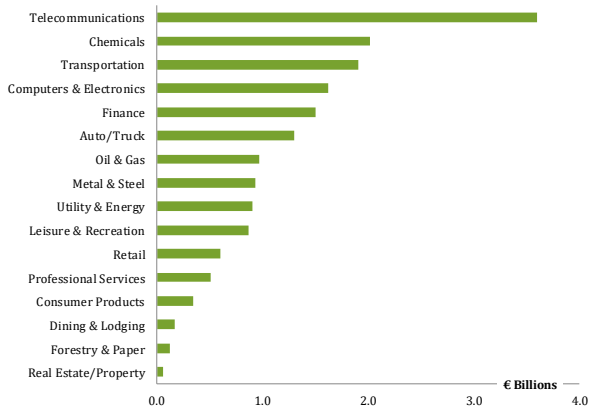
Source: Dealogic

4.2 European Developed Market HY Issuance by Currency



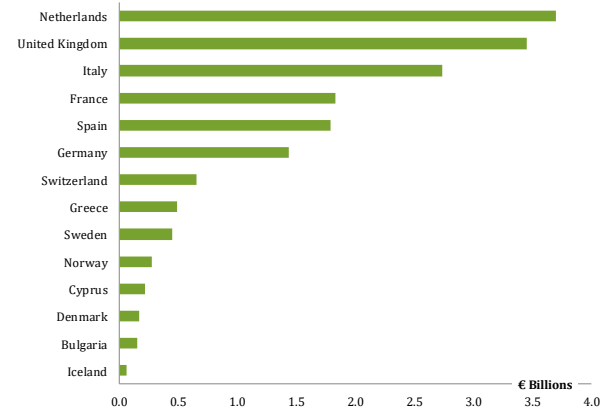
Source: Dealogic

4.3 European Developed Market HY Issuance by Industry: 3Q 2018



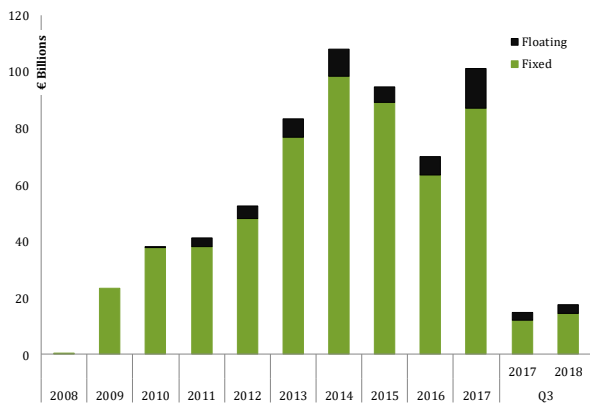
Source: Dealogic

4.4 European Developed Market HY Issuance by Country of Risk: 3Q 2018



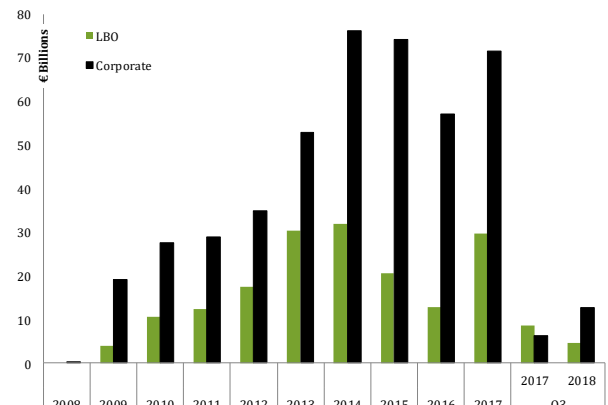
Source: Dealogic

4.5 European Developed Market HY Issuance, Fixed vs. Floating



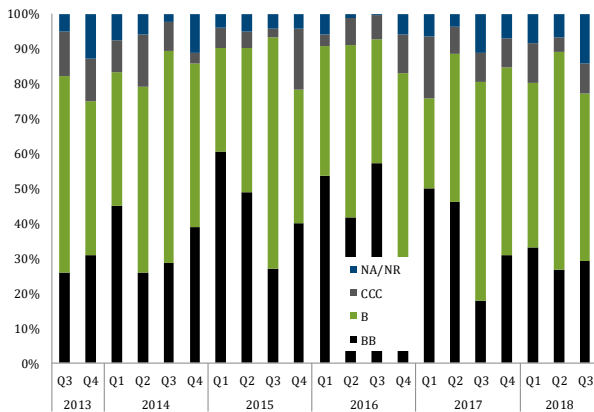
Source: Dealogic

4.6 European Developed Market HY Issuance, Sponsored vs. Corporate



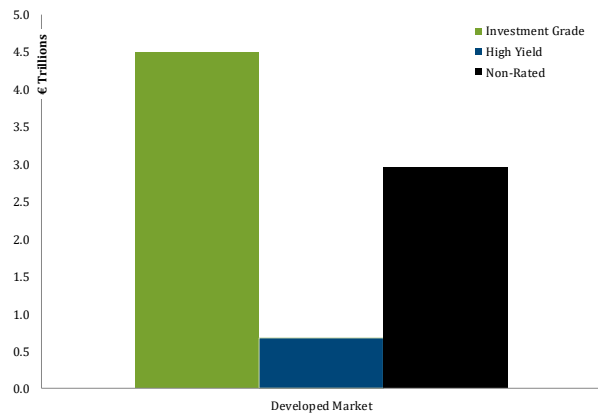
Source: Dealogic

4.7 European Developed Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

4.8 European Developed Market Corporate Bonds Outstanding: 3Q 2018



Source: Bloomberg, AFME, SIFMA

4.9 European Developed Market HY Bond Issuance

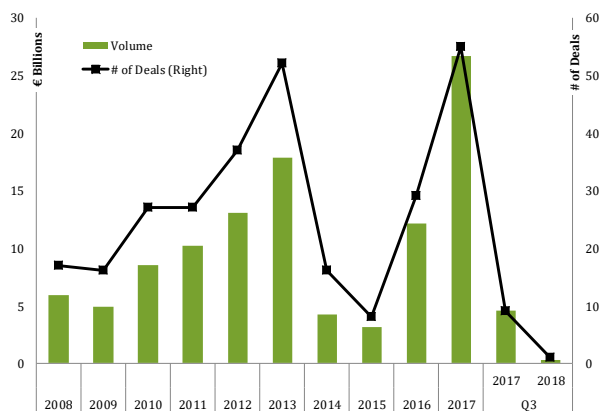
Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch
Seadrill New Finance Ltd	Oil & Gas	02/07/2018	USD	880	12.00 NA	NA	NA	NA
Autodis SA	Auto/Truck	05/07/2018	EUR	175	3M EURIBOR +437.5	B2	B	NA
SB Holdco plc	Consumer Products	06/07/2018	EUR	45	3M EURIBOR +800	NA	NA	NA
Gulf Keystone Petroleum Ltd	Oil & Gas	06/07/2018	USD	100	10.00 NA	NA	NA	NA
OTE plc	Telecommunications	11/07/2018	EUR	400	2.38 NA	BB+	BB+	NA
K+S AG	Chemicals	11/07/2018	EUR	600	3.25 NA	BB	BB	NA
Fabric BC SpA	Forestry & Paper	11/07/2018	EUR	125	3M EURIBOR +412.5	B2	B+	NA
Kongsberg Actuation Systems BV	Auto/Truck	13/07/2018	EUR	275	5.00	Ba3	BB-	NA
Kaefer Isoliertechnik GmbH & Co KG	Transportation	17/07/2018	EUR	250	5.50	B1	BB-	BB
Altice France SA*	Telecommunications	17/07/2018	USD	1,750	8.13	B1	B	NA
Altice France SA*	Telecommunications	17/07/2018	EUR	1,000	5.88	B1	B	NA
ContourGlobal Power Holdings SA*	Utility & Energy	19/07/2018	EUR	450	3.38 NA	BB	BB	BB
ContourGlobal Power Holdings SA*	Utility & Energy	19/07/2018	EUR	300	4.13 NA	BB	BB	BB
Blitz F18-674 GmbH	Professional Services	19/07/2018	EUR	465	6.00	Caa1	B-	CCC+
Foscolo SpA	Computers & Electronics	24/07/2018	EUR	125	3M EURIBOR +525	NA	NA	NA
Bulgarian Energy Holding EAD	Utility & Energy	24/07/2018	EUR	150	3.50	Ba2	NA	BB
Promontoria Holding 264 BV*	Transportation	27/07/2018	EUR	400	6.75	B2	B	NA
Promontoria Holding 264 BV*	Transportation	27/07/2018	EUR	260	3M EURIBOR +625	B2	B	NA
Platin 1426 GmbH	Computers & Electronics	27/07/2018	EUR	125	6.88	B3	B	NA
CEVA Logistics Finance BV	Transportation	27/07/2018	EUR	300	5.25	B1	NA	NA
Regional REIT Ltd	Real Estate/Property	01/08/2018	GBP	50	4.50	NA	NA	NA
Nexans SA	Metal & Steel	01/08/2018	EUR	325	3.75	NA	BB	NA
Mulhacen Pte Ltd	Finance	01/08/2018	EUR	515	6.50	NA	B+	BB-
Mercury UK Holdco Ltd	Computers & Electronics	13/08/2018	EUR	750	3M EURIBOR +662.5	NA	NA	NA
Bank of Cyprus Holdings plc	Finance	28/08/2018	EUR	220	12.50	NA	NA	NA
SSAB AB	Metal & Steel	30/08/2018	EUR	150	2.88	NA	NA	NA
BidCo nr 2 af 15 marts 2018 A/S	Professional Services	04/09/2018	EUR	43	3M EURIBOR +700	NA	NA	NA
Dometic Group AB	Consumer Products	06/09/2018	EUR	300	3.00	Ba3	BB	NA
Jaguar Land Rover Automotive plc	Auto/Truck	11/09/2018	EUR	500	4.50	Ba2	BB	BB+
Ei Group plc	Dining & Lodging	11/09/2018	GBP	150	7.50	NA	B	NA
Gamenet Group SpA	Leisure & Recreation	13/09/2018	EUR	225	3M EURIBOR +512.5	B1	B+	NA
eDreams ODIGEO SA	Computers & Electronics	14/09/2018	EUR	425	5.50	B2	B	NA
Arqiva Broadcast Finance plc	Telecommunications	14/09/2018	GBP	625	6.75	B2	NA	B-
International Game Technology plc	Leisure & Recreation	17/09/2018	USD	750	6.25	Ba2	BB+	NA
Diana Shipping Inc	Transportation	17/09/2018	USD	100	9.50	NA	NA	NA
Wow air ehf	Transportation	18/09/2018	EUR	60	3M EURIBOR +900	NA	NA	NA
InterXion Holding NV	Computers & Electronics	18/09/2018	EUR	200	4.75	B1	BB-	NA
Bracken MidCo1 plc	Finance	18/09/2018	GBP	350	8.88	NA	NA	B
Ziton A/S*	Oil & Gas	20/09/2018	EUR	100	3M EURIBOR +690	NA	NA	NA
Ziton A/S*	Oil & Gas	20/09/2018	EUR	25	3M EURIBOR +1185	NA	NA	NA
Starfruit US Holdco LLC*	Chemicals	20/09/2018	USD	605	8.00	Caa1	B-	B-
Starfruit US Holdco LLC*	Chemicals	20/09/2018	EUR	485	6.50	Caa1	B-	B-
Louvre Bidco SAS	Finance	21/09/2018	EUR	120	3M EURIBOR +537.5	B2	NA	NA
Garrett LX I SARL	Auto/Truck	21/09/2018	EUR	350	5.13	B2	B	NA
Fire (BC) SpA	Chemicals	21/09/2018	EUR	410	3M EURIBOR +475	B3	NA	NA
Abanca Corporacion Bancaria SA	Finance	24/09/2018	EUR	250	7.50	NA	NA	B
Guala Closures SpA	Metal & Steel	26/09/2018	EUR	455	3M EURIBOR +350	B1	B+	NA
Getlink SE	Transportation	26/09/2018	EUR	550	3.63	NA	BB	BB+
El Corte Ingles SA	Retail	28/09/2018	EUR	600	3.00	Ba1	BB+	BB+

* denotes multiple tranches of the deal

Source: Dealogic

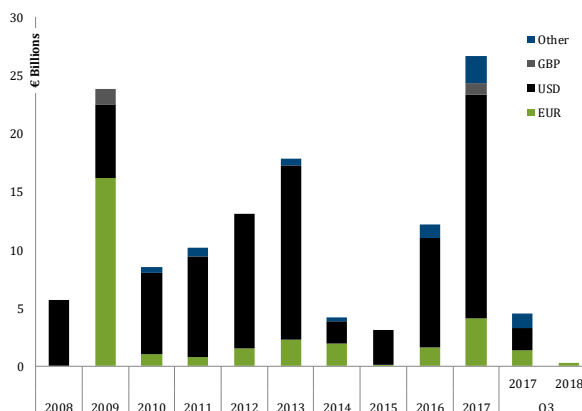
5 Issuance – European Emerging Market High Yield Bonds

5.1 European Emerging Market HY Bond Issuance



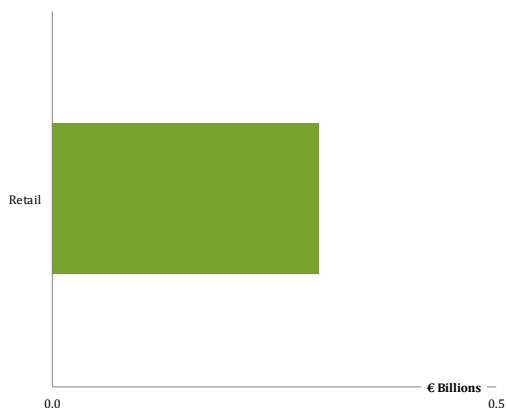
Source: Dealogic

5.2 European Emerging Market HY Bond Issuance by Currency



Source: Dealogic

5.3 European Emerging Market HY Issuance by Industry: 3Q 2018



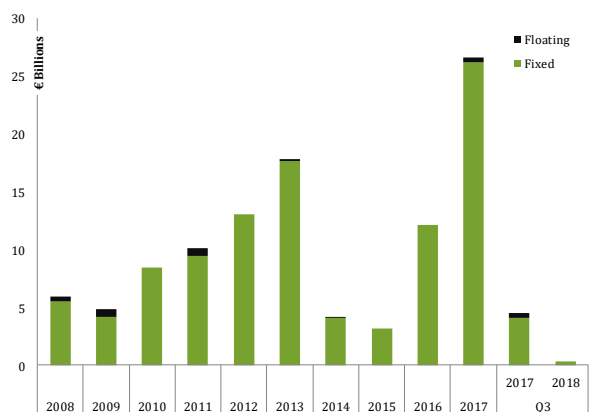
Source: Dealogic

5.4 European Emerging Market HY Issuance by Country of Risk: 3Q 2018



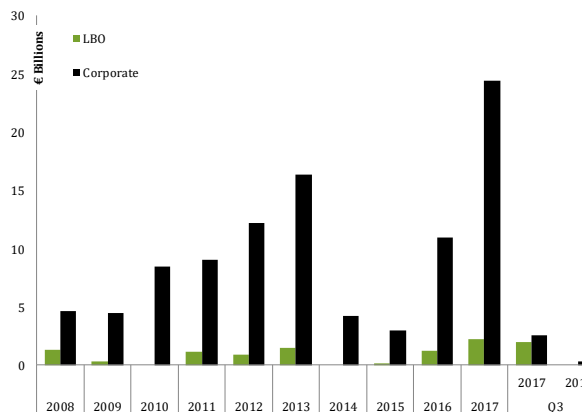
Source: Dealogic

5.5 European Emerging Market HY Issuance, Fixed vs. Floating



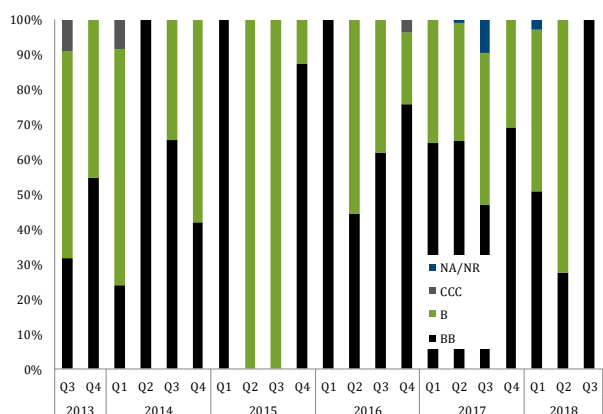
Source: Dealogic

5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate



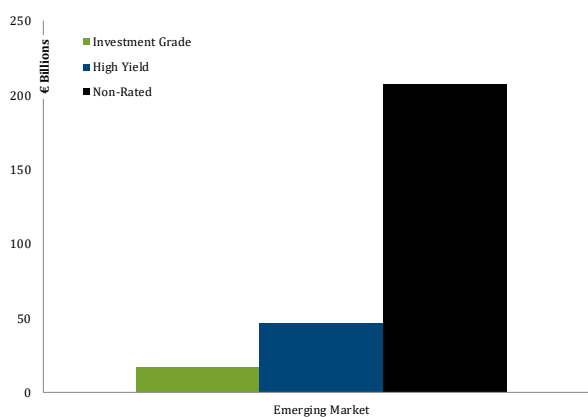
Source: Dealogic

5.7 European Emerging Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

5.8 European Emerging Market Corporate Bonds Outstanding: 3Q 2018



Source: Bloomberg, AFME, SIFMA

5.9 European Emerging Market HY Bond Issuance

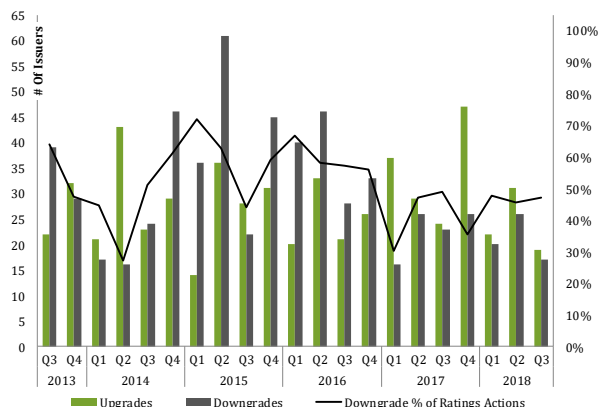
Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moodys	S&P	Fitch
Maxima Grupe UAB	Retail	06/09/2018	EUR	300	3.250	NA	BB+	NA

* denotes multiple tranches of the deal

Source: Dealogic

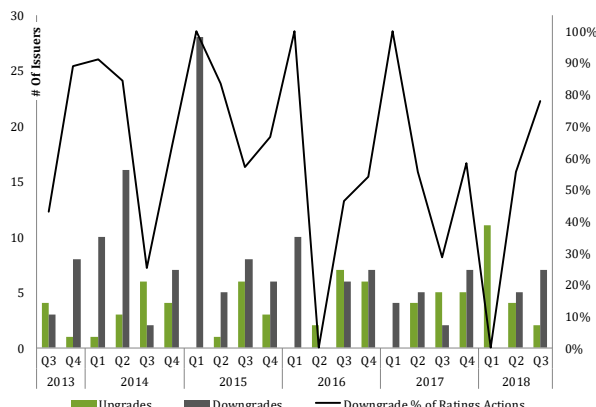
6 Credit Quality

6.1 Developed Europe Issuer Rating Actions⁵



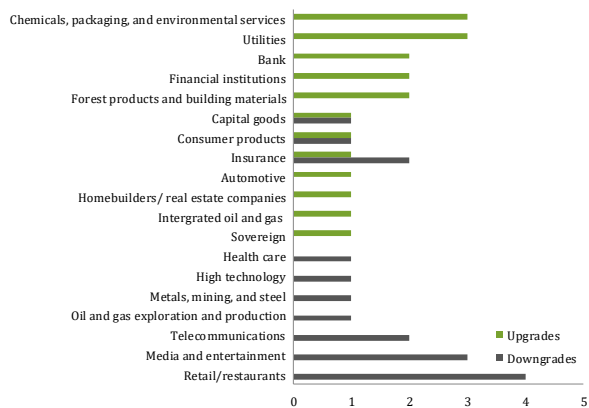
Source: Standard and Poor's

6.2 Emerging Europe Issuer Rating Actions⁶



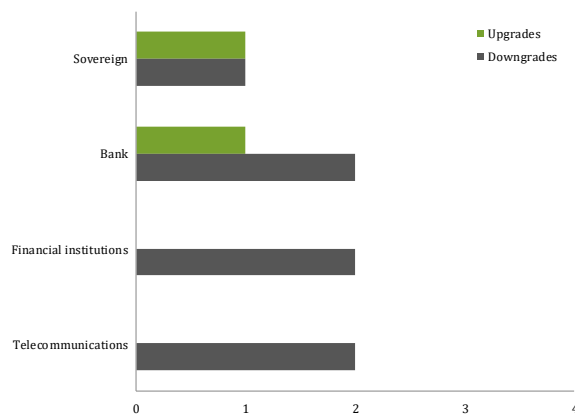
Source: Standard & Poor's

6.3 Developed European Industry Rating Actions by Number of Ratings: 3Q 2018



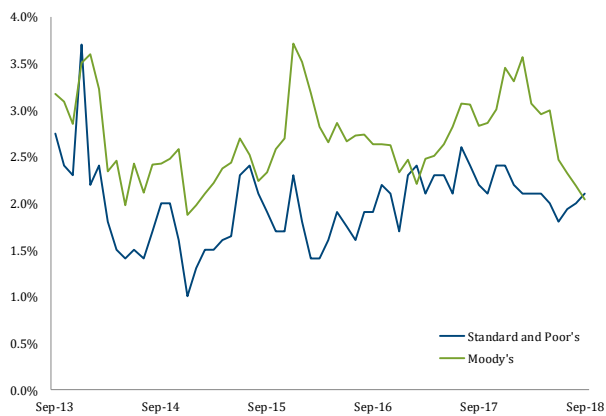
Source: Standard & Poor's

6.4 Emerging European Industry Rating Actions by Number of Ratings: 3Q 2018



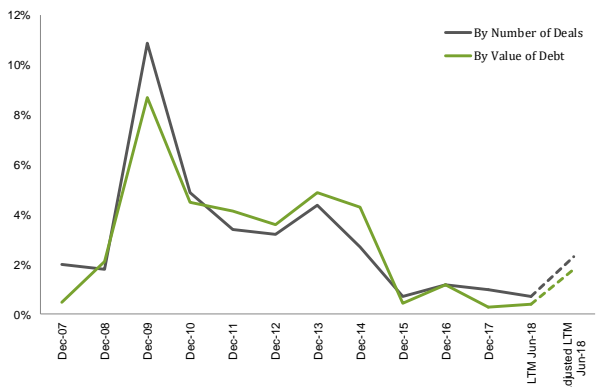
Source: Standard & Poor's

6.5 European High Yield Default Rates



Source: Standard & Poor's, Moody's

6.6 European Leveraged Loan Default Rates⁷



Note: Data only available to Jun-18 at the time of publication.

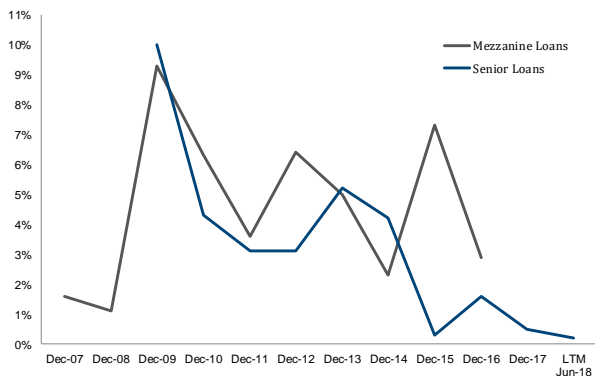
Source: Fitch Leveraged Credit Database

⁵ Numbers include both corporate and sovereigns.

⁶ Numbers include both corporate and sovereigns.

⁷ Includes c* and cc* rated issuers as if those had already defaulted.

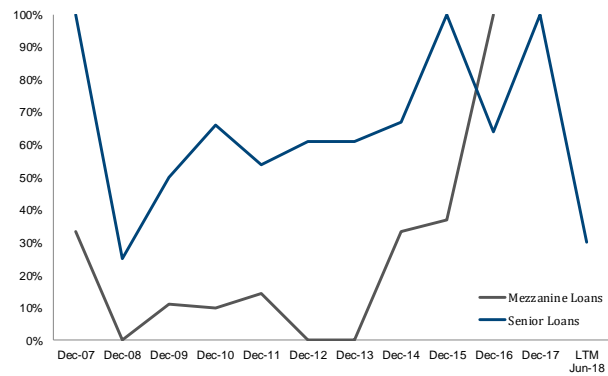
6.7 Mezzanine and Senior Loan Default Rate



Note: Data only available to Jun-18 at the time of publication; there were no mezzanine defaults or mezzanine loans outstanding since Dec-17.

Source: Fitch Leveraged Credit Database

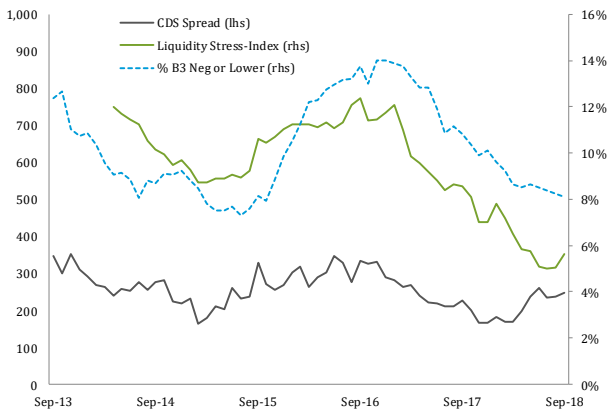
6.8 Mezzanine and Senior Loan Recovery Rates



Note: Data only available to Jun-18 at the time of publication; there were no mezzanine defaults or mezzanine loans outstanding since Dec-17.

Source: Fitch Leveraged Credit Database

6.9 High-Yield bond CDS spreads vs. liquidity-stress index and HY bonds rated B3 neg and lower in Europe



Source: Moody's

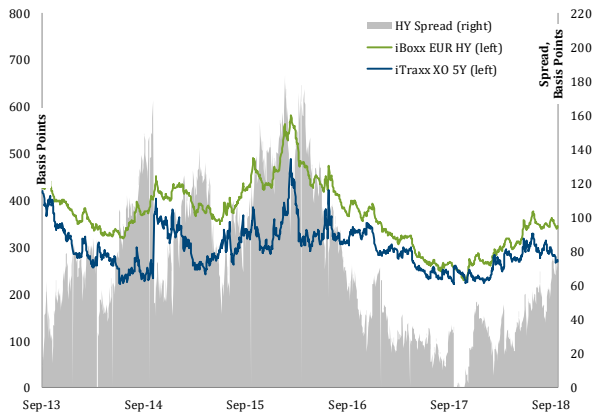
6.10 European Defaults

Issuer	Industry Group	Country	Date	Reported By	Reason
Intelsat S.A.	Telecommunications	Luxembourg	July 2018	S&P	Distressed exchange
HoldIKKS SAS	Consumer products	France	July 2018	S&P	Missed principal and interest payment
House of Fraser (UK & Ireland) Ltd.	Retail/Restaurants	U.K.	July 2018	S&P, Moody's	Distressed exchange
Fleetcorp Operasyonel Tasit Kiralan	Finance companies	Turkey	August 2018	S&P	Missed debt payment
House of Fraser (UK & Ireland) Ltd.	Retail/Restaurants	U.K.	August 2018	S&P	Bankruptcy
Derindere Turizm Otomotiv Sanayi	Finance companies	Turkey	September 2018	S&P	Missed debt payment

Source: Standard & Poor's, Moody's

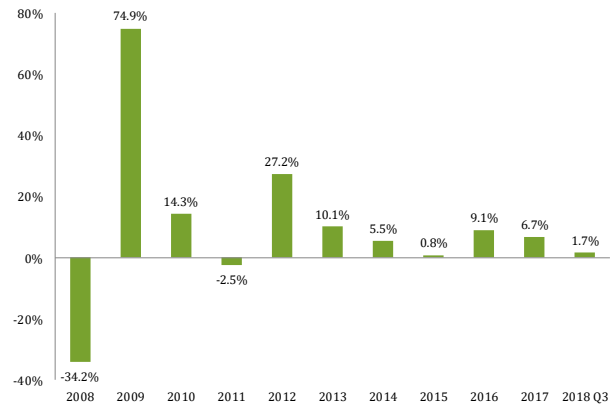
7 Relative Value and Total Return

7.1 Relative value: European HY Bonds, Cash vs. Synthetic



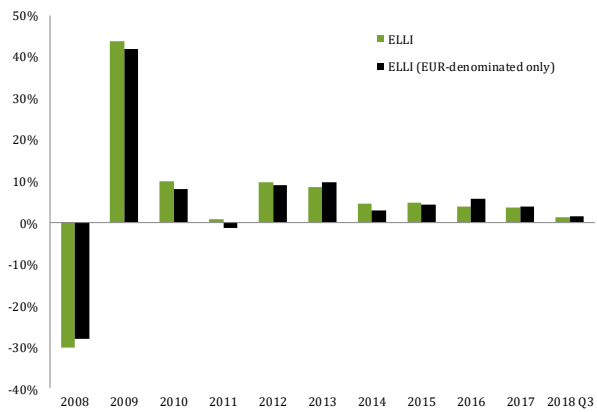
Source: Thomson Reuters Eikon, Markit

7.2 European HY Bond Total Return



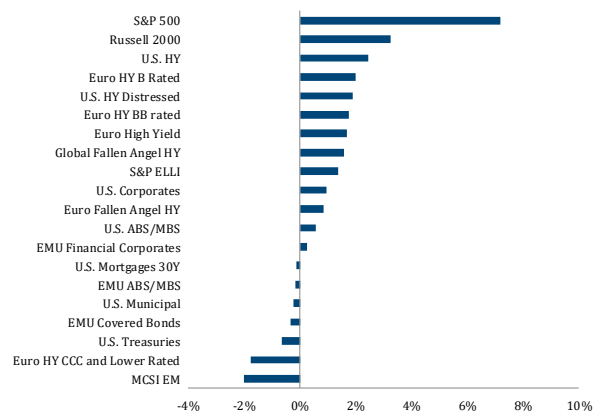
Source: BAML

7.3 European Leveraged Loan Total Return



Source: Standard & Poor's LCD

7.4 Asset Class Total Return: 3Q 2018



Source: BAML, Bloomberg

Summary of the Methodologies Adopted for this Report

1. Leveraged Issuance – Overview

1.1. – 1.3. Leveraged Loans and High Yield Bonds

Leveraged loan data are sourced from Dealogic. Leveraged loan data are defined primarily as coming from a leveraged or highly leveraged European deal; loan tranches must have sub-investment grade ratings, or, if unrated, a margin spread minimum of 125 basis points over a benchmark (e.g., Euribor, LIBOR). Under these guidelines, sub-investment grade-rated loans with a margin spread of less than 125 basis points are included. Deals must be European and are inclusive of both developed and emerging market Europe as defined in high yield criteria in Section 3. Deals must also be marketed either in Europe or in the United States. Loans not EUR-denominated are converted to EUR as of credit date for purposes of aggregation. Aggregates include new money as well as non-new money deals.

Criteria for high yield bond transactions can be found in Section 3, 4, and 5.

1.4. – 1.7. Bank Lending Surveys

Data for loan demand and credit standards are sourced from the ECB's bank lending survey. Graph numbers are net percentages of reporting banks.

1.8. Global Comparison – High Yield Issuance

Data for global high yield issuance are sourced from Dealogic. Asian deals are inclusive of Japan and Australia. Totals include issues having a Dealogic "deal nationality/region" as well as "nationality/region of risk" within US, Europe or Asia Pacific. Sovereign, sub-sovereign, and supranational parent issuers are excluded from issuance, as well as ABS/MBS issuers.

2. Issuance – Leveraged Loans

2.1. – 2.2. Leveraged Loan Issuance

Leveraged loan issuance data are sourced primarily from Dealogic and Thomson Reuters LPC. For more details on qualifying criteria, please refer to section 1.

2.3. Forward Pipeline of Leveraged Loan Market

Forward leveraged loan pipeline data are sourced from S&P LCD.

2.4. S&P ELLI Total Institutional Loans Outstanding

Total institutional loan outstanding data are sourced from S&P LCD and are outstanding loans in the S&P ELLI index.

2.5. S&P ELLI Ratings Diversification

S&P ELLI ratings diversification are the percentages of currently outstanding loans in S&P's ELLI index that are rated accordingly. Data are provided by S&P LCD.

2.6. – 2.7. Loan Spreads

Loan spread data are sourced from Dealogic under our criteria for leveraged loans (see Section 1). For purposes of loan spread calculations, deals marketed in the US are excluded. Spreads are a weighted average of spread margin on new leveraged issuance on a rolling twelve months basis, and are typically benchmarked to LIBOR or EURIBOR. Institutional loan spread data are inclusive of 2nd lien; pro rata spreads include all revolvers and term loan A (T1a).

3. Issuance – High Yield Bonds Overview

High yield bond transactions are sourced primarily from Dealogic, with supplemental information sourced from Bloomberg. High yield transactions are defined as transactions with a Dealogic "effective" rating of equal or less than BB+, and may include unrated transactions based on issuer and desk notes. Split-junk rated transactions are generally excluded.

European issuance, inclusive of both emerging market Europe and developed market Europe, are defined as an issue having a Dealogic "deal nationality" as well as "nationality of risk" within Europe issued in the euro, foreign, and global markets; deals marketed locally are excluded. Sovereign, sub-sovereign, and supranational parent issuers are excluded from issuance, as well as ABS/MBS issuers.

Emerging market Europe and developed market European issuance are defined by nationality of risk, rather than nationality of deal, and although primarily sourced from Dealogic, are ultimately subject to AFME's discretion. Emerging and developed market issuances are mutually exclusive and will contain no overlap unless otherwise mentioned.

European emerging market bonds are further defined with having a minimum deal size of €75.0 million; deals on the same day from the same issuer are aggregated for the purpose of meeting this minimum. Deals are shown in EUR amount but

include deals originated in other currencies and are converted to EUR at the exchange rate on the day of the deal. Russian ruble (RUB)-denominated issuance are excluded due to differences in terms and documentation; as of 4Q'10 this criteria no longer applies and may be included on a case by case basis.

3.2. European HY Issuance by Sponsor

Data for high yield issuance by sponsor are sourced from Dealogic. LBO deals are defined as all high yield transactions whose issuer parent is a public or private finance entity (i.e., a financial sponsor), regardless of use of proceeds.

3.3. – 3.6. European Corporate Bonds Outstanding

Data for European corporate outstanding are sourced from Bloomberg and AFME/SIFMA estimates. Criteria for European corporate bonds are: bonds must be placed in the domestic, euro, foreign and global markets with nationality of incorporation from a European developed or emerging market country as defined by AFME. Corporate bonds exclude non-Bloomberg verified securities, all structured notes, covered bonds, warrants, deposit notes, receipts, and certificates of deposit. All currencies are included and have been converted to EUR at time of pricing and/or issue.

High-yield ratings are sourced from Bloomberg's composite rating, which is an average of all available ratings from four rating agencies: Moody's, Standard and Poor's, Fitch Ratings, or DBRS. Split-rated securities may be included in high yield numbers due to this.

Corporate bonds outstanding include certain securities that may be considered corporate securitisations or structured finance securities; while all effort is made to exclude the latter, the former will be counted toward the corporate bonds outstanding total, and will subsequently overlap to some extent to AFME structured finance outstanding numbers. Excludes unrated securities.

3.7. European Corporate Bond Issuance by Rating

Data for HY issuance by rating are sourced from Dealogic, Bloomberg, and the three rating agencies. The composite rating is determined by the lowest rating assigned by either Moody's, Standard and Poor's, or Fitch Ratings.

3.8. European Corporate Bond Issuance by Tenor

Data for HY issuance by tenor are sourced from Dealogic. "Other" includes perpetuals.

3.9. European HY Issuance By Use of Proceeds

Data for HY issuance by use of proceeds are sourced from Dealogic and aggregated for the purposes of this calculation. Please refer to Section 3 for criteria on high yield issue inclusion.

4. Issuance – European Developed Market High Yield Bonds

4.1. – 4.7., 4.9 European Developed Market HY Bond Issuance

High yield bond issuance data are sourced from Dealogic. For further criteria on how high yield issuance are defined, please refer to section 3.

Developed European issuance are deals predominantly from western Europe and includes deals from Andorra, Austria, Belgium, Bulgaria, Cyprus, Switzerland, Germany, Denmark, Spain, Estonia, Finland, France, Faroe Islands, United Kingdom, Guernsey, Gibraltar, Greenland, Greece, Isle of Man, Ireland, Iceland, Italy, Jersey, Liechtenstein, Luxembourg, Monaco, Malta, Montenegro, Netherlands, Norway, Portugal, San Marino, and Sweden.

4.8. European Developed Market Corporate Bonds Outstanding

Data for corporate bonds outstanding are sourced from Bloomberg. Please refer to Section 3 for criteria and methodology.

5. Issuance – European Emerging Market High Yield Bonds

5.1. – 5.7., 5.9. European Emerging Market HY Bond Issuance

High yield bond issuance data are sourced from Dealogic. Criteria for all high yield issuance are found in section 3.

Emerging market European issuance deals are predominantly from Eastern Europe but will also additionally include Turkey, the Russian Federation, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Azerbaijan, and Kyrgyzstan. Certain sub-investment grade countries are not included in the emerging market total, including, among others, Iceland and Greece.

5.8. European Emerging Market Corporate Bonds Outstanding

Data for corporate bonds outstanding are sourced from Bloomberg. Please refer to Section 3 for criteria and methodology.

6. Credit Quality

6.1. – 6.2. European Issuer Rating Actions

European issuer upgrades and downgrades are sourced from S&P. The breakdown by emerging market and developed Europe are from AFME's definition of developed and emerging markets and would be, under S&P's guidelines, a combination of both European and EMEA rating actions. Multiple downgrades of a single issuer are counted separately. Rating actions are inclusive of both corporate (both credit and merger-related) as well as sovereign ratings.

6.3. – 6.4. European Issuer Rating Actions by # of Ratings

Rating actions are sourced from S&P. Breakdown by emerging market and developed Europe are from AFME's definition of developed and emerging markets and would be, under S&P's guidelines, a combination of both European and EMEA rating actions.

6.5. European High Yield Default Rate

European HY bond default rates are sourced from Standard and Poor's and Moody's, calculated on a trailing 12 month basis.

"Europe" for the S&P default rate is defined to include Austria, Belgium, Bulgaria, Channel Islands, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. Countries are subject to revision.

6.6. – 6.7. European Leveraged Loan Default Rate

European LL default rates are sourced from Fitch Leveraged Credit Database, calculated on a trailing 12 month basis.

6.8. Leveraged Loan Recovery Rates

European LL recovery rate are sourced from Fitch Leveraged Credit Database, calculated on a trailing 12 month basis. Recovery rates are based on median cash realised (cash or cash-pay debt received) recoveries for senior loans and on average cash realised recoveries (excluding any equity/warrants given in a debt exchange) for mezzanine loans.

6.9. HY CDS spreads vs. liquidity-stress index and HY bonds rated B3 negative and lower in Europe

The liquidity stress index is calculated by Moody's Investor Services as the percentage of speculative

grade companies with the weakest liquidity profile in EMEA. Speculative grade liquidity is categorised in one of four ways: SGL 1: Very good liquidity.

Most likely to meet obligations over the coming 12 months through internal resources without relying on external sources of committed financing. SGL 2: Good liquidity. Likely to meet obligations during the coming 12 months through internal resources but may rely on external sources of committed financing. The issuer's ability to access committed financing is highly likely, based on Moody's evaluation of near term covenant compliance.

SGL3: Adequate liquidity. Expected to rely on external sources of committed financing. Based on Moody's evaluation of near term covenant compliance there is only a modest cushion, and the issuer may require covenant relief in order to maintain orderly access to funding lines. SGL4: Weak liquidity. Relies on external sources of financing and the availability of that financing is, in Moody's opinion, highly uncertain.

The percentage of bonds rated B3 negative or lower is sourced from Moody's

6.10. European Defaults

Defaults reported by either Moody's or Standard and Poor's in the European bond markets and loan markets, when available.

7. Cash and Synthetic

7.1. Loans and Bonds, Cash and Synthetic

Data are sourced from Markit and Thomson Reuters LPC. High yield bond cash and synthetic spreads from Markit; European leveraged loan cash bid prices from Thomson Reuters LPC, and European leveraged loans synthetic prices from Markit.

7.2. European HY Bond Total Return

European HY bond total return data are sourced from the Bank of America-Merrill Lynch's Euro High Yield Index (HE00). The index tracks the performance of EUR-denominated below-investment-grade corporate debt publicly issued in the euro domestic or Eurobond markets. Qualifying securities must have a below-investment-grade rating and an investment-grade rated country of risk. Qualifying securities must have at least one year remaining term to maturity, fixed coupon schedule and minimum amount outstanding of €100 million. Original issue zero coupon bonds, "global securities" (debt issued simultaneously in the Eurobond and euro domestic markets), 144a securities and pay-in-kind securities, including toggle notes, qualify for inclusion in the index. Callable perpetual securities qualify provided they are at least one year from the first call date. Fixed-to-floating rate securities also qualify provided they

are callable within the fixed rate period and are at least one year from the last call prior to the date the bond transitions from a fixed to a floating rate security. Defaulted, warrant-bearing and euro legacy currency securities are excluded from the index.

7.3. European Leveraged Loan Total Return

Total return data are provided by S&P LCD and are total returns from S&P's ELLI index, both ELLI and EUR-denominated ELLI. Total returns for ELLI EUR-denominated data are unavailable for 2003 and 2004.

7.4. Asset Class Total Return (Cash Basis)

Total returns are sourced from respective index owners and Bank of America-Merrill Lynch's indices.

Annex

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