

European High Yield & Leveraged Loan Report

European Leveraged Finance

Q3: 2016



Table of Contents

Table of Contents	2
Highlights and Market Environment	4
Issuance Highlights	4
Market and Economic Environment	4
Issuance: Leveraged Loans	5
Issuance: High Yield Bonds	6
Returns & Credit Quality	7
1 Leveraged Finance Overview	8
1.1 European Leveraged Issuance by Type	8
1.2 European Leveraged Issuance Percentage	8
1.3 European Leveraged Average Deal Size	8
1.4 Bank Credit Standards	8
1.5 Factors Affecting Bank Credit Standards	8
1.6 European Leveraged Issuance Percentage	8
1.7 Factors Affecting Loan Demand: July 2016	9
1.8 Global Comparison – High Yield Issuance	9
2 Issuance – Leveraged Loans	10
2.1 European Leveraged Loan Issuance By Type	10
2.2 European Leveraged Loan Issuance by Industry	10
2.3 Forward Pipeline of Leveraged Loan Market	10
2.4 ELLI Total Institutional Loans Outstanding	10
2.5 ELLI Ratings Diversification	10
2.6 Institutional and Pro Rata Spreads	10
2.7 Mezzanine Spreads	11
3 Issuance – High Yield Bonds Overview	12
3.1 European High Yield Issuance	12
3.2 European High Yield Issuance by Sponsor	12
3.3 European Corporate Bonds Outstanding	12
3.4 European Corporate Bonds Maturity Wall	12
3.5 European Corporate HY Bonds Outstanding by Sector	12
3.6 European Corporate HY Bonds Outstanding by Current Rating	12
3.7 European Corporate Bond Issuance by Rating	13
3.8 European Corporate Bond Issuance by Tenor	13
3.9 European HY Use of Proceeds	13
4 Issuance – European Developed Market High Yield Bonds	14
4.1 European Developed Market HY Bond Issuance	14
4.2 European Developed Market HY Issuance by Currency	14
4.3 European Developed Market HY Issuance by Industry	14
4.4 European Developed Market HY Issuance by Country of Risk	14
4.5 European Developed Market HY Issuance, Fixed vs. Floating	14
4.6 European Developed Market HY Issuance, Sponsored vs. Corporate	14
4.7 European Developed Market HY Rating Distribution at Issuance	15
4.8 European Developed Market Corporate Bonds Outstanding	15
4.9 European Developed Market HY Bond Issuance	15
5 Issuance – European Emerging Market High Yield Bonds	16
5.1 European Emerging Market HY Bond Issuance	16
5.2 European Emerging Market HY Bond Issuance by Currency	16
5.3 European Emerging Market HY Issuance by Industry	16
5.4 European Emerging Market HY Issuance by Country of Risk	16
5.5 European Emerging Market HY Issuance, Fixed vs. Floating	16
5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate	16
5.7 European Emerging Market HY Rating Distribution at Issuance	17
5.8 European Emerging Market Corporate Bonds Outstanding	17
5.9 European Emerging Market HY Bond Issuance	17
6 Credit Quality	18
6.1 European HY Default Rate	18
6.2 Developed Europe Issuer Rating Actions	18
6.3 Emerging Europe Issuer Rating Actions	18
6.4 Developed European Industry Rating Actions by Number of Ratings	18
6.5 Emerging European Industry Rating Actions by Number of Ratings	18
6.6 European Leveraged Loan Default Rate	18
6.7 Mezzanine Loans Default Rate	19
6.8 Mezzanine and Senior Loan Recovery Rates	19

6.9	High-Yield bond CDS spreads vs. liquidity-stress index and HY bonds rated B3 neg and lower in Europe	19
6.10	European Defaults	19
7	Relative Value and Total Return	20
7.1	Relative value: European HY Bonds, Cash vs. Synthetic.....	20
7.2	European HY Bond Total Return	20
7.3	European Leveraged Loan Total Return.....	20
7.4	Asset Class Total Return, Quarter	20
	Summary of the Methodologies Adopted for this Report	21
	Annex.....	25

Highlights and Market Environment

Highlights

Issuance Highlights

European leveraged finance issuance (leveraged loans and high yield bonds) increased in 3Q'16 to €53.3 billion, a 2.3% increase from €52.1 billion in 2Q'16 and an 80.3% increase from €29.6 billion in 3Q'15. The quarterly surge stems from the large increase in leveraged loan issuance, which increased by 45.4% in the third quarter of 2016 while high yield bonds issuance decreased by 25.3%; the high yield bond share of the leveraged finance market decreased to 44.5%, down from 61.0% in 2Q'16 but slightly up from 44.1% in 3Q'15.

Market and Economic Environment

According to the October 2016 European Central Bank lending survey, in the third quarter of 2016, loan growth continued to be supported by increasing demand across all loan categories, while credit standards remained unchanged for enterprises and eased for households. The net easing of banks' overall terms and conditions on new loans continued for loans to enterprises and households, mainly driven by margins on average loans. Competitive pressures and, to a lesser extent, lower risk perceptions continued to have an easing effect on credit standards on loans to enterprises.

Across firm sizes, credit standards were eased marginally for loans to large firms and remained broadly unchanged for loans to small and medium-sized enterprises. For the large euro area countries, credit standards on loans to enterprises eased marginally in Germany, while they remained unchanged in France, Italy, Spain and the Netherlands.

Credit standards on housing loans eased and were stronger than the historical average. The main reported factors contributing to an easing in standards were banks' cost of funds and balance sheet constraints.

Looking ahead to the fourth quarter of 2016, euro area banks expect a tightening of credit standards on loans to enterprises and broadly unchanged credit standards on consumer credit and other lending to households.

Net demand increased for all types of loans in 3Q'16 and banks forecast a further net increase in the demand for loans in the fourth quarter. The main contributing factors for net demand for loans to enterprises in the third quarter of 2016 were the general level of interest rates and merger and acquisition activities. Net demand for housing loans continued to be driven by the low general level of interest rates, continued favourable housing market prospects and increased consumer confidence.

“European leveraged finance issuance (leveraged loans and high yield bonds) increased in 3Q'16 to €53.3 billion”

Issuance

Issuance: Leveraged Loans

Leveraged loan issuance, including first lien, second lien, and mezzanine financing, increased in the third quarter of 2016 to €29.6 billion, up 45.4% q-o-q (€16.5 billion in 2Q'16) and 78.9% up y-o-y (€25.2 billion in 3Q'15).

Amend-and-extend (“A&E”) transactions continued to take place and their issuance volume increased to €2.7 billion in the third quarter of 2016, a 31.3% increase from the 2Q'16 (€2.1 billion) and a 67.5% increase from 3Q'15 (€1.6 billion).

In 3Q'16, no mezzanine loans or second lien loans were financed. Pricing spreads for institutional loans and mezzanine loans tightened by 2 basis points (bps) and 10 bps, respectively, while spreads for pro rata loans widened by 59 bps in 3Q'16.

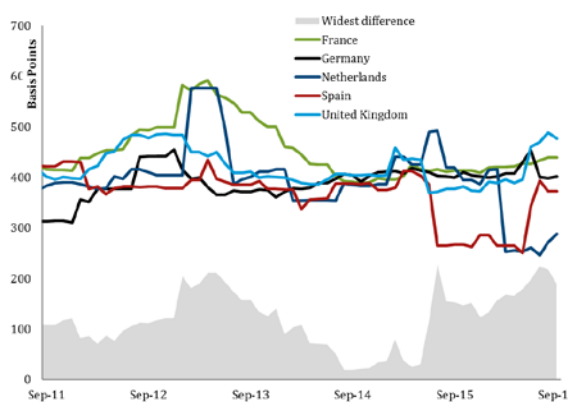
According to Dealogic, the top five sectors in leveraged loan issuance for the third quarter of 2016 accounted for over half of the issuance volume; the leading sector was auto/truck (€6.4 billion), followed by chemicals (€3.2 billion), finance (€2.6 billion), professional services (€2.4 billion) and machinery (€2.3 billion).

The share of deals aimed to refinance and/or repay debt increased to 69.9% of all deals by euro amount in the third quarter of 2016, compared to 56.5% in 2Q'16 and 27.0% in 3Q'15. Refinancing and/or repaying of debt was the largest use of proceeds in 3Q'16 with €20.7 billion, an increase of 79.8% q-o-q (€11.5 billion in 2Q'16) and 362.6% up y-o-y (€4.5 billion in 3Q'15). The second largest use of proceeds in the third quarter of 2016 was leveraged buyouts totalling €6.1 billion or 20.7% of total issuance, down from €7.2 billion in 2Q'16 (35.5% of total) and down from €9.4 billion in 3Q'15 (56.9% of total).

European CLO outstandings, including SME deals, increased by an annualized rate of 0.5% to €171.0 billion in 3Q'16. Non-SME CLOs increased at an annualized rate of 0.9% to €86.4 billion in 3Q'16 while SME CLOs stayed flat at €84.5 billion.

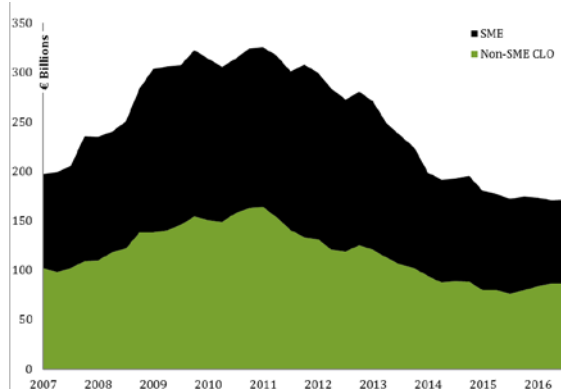
“Leveraged loan issuance in 3Q'16 totalled €29.6 billion on 40 deals”

Institutional Spreads



Source: Dealogic, AFME, SIFMA

European CLO Outstanding



Source: AFME, SIFMA

“Primary high yield issuance in 3Q’16 totalled €23.7 billion on 41 deals”

Issuance: High Yield Bonds

Primary high yield issuance in 3Q’16 totalled €23.7 billion on 41 deals, a 25.3% decrease by euro amount from 2Q’16 (€31.8 billion on 54 deals) but a 20.6% increase from 2Q’15 (€13.0 billion on 34 deals). High yield bond issuance decreased q-o-q in both developed and emerging market Europe in the third quarter of 2016.

Primary high yield issuance in developed market Europe in the third quarter of 2016 was €21.0 billion on 33 deals, a 25.6% decrease by euro amount from 2Q’16 (€28.2 billion on 46 deals) but a 65.1% increase from 3Q’15 (€12.7 billion on 33 deals).

In emerging market Europe primary high yield issuance in 3Q’16 was €2.7 billion on 8 deals, a decrease of 22.3% by euro amount from 2Q’16 (€3.5 billion on 8 deals) but an increase of 761.2% from 3Q’15 (€0.3 billion on 1 deal).

In the third quarter of 2016, average deal size in developed market Europe increased by 3.6% to €636.2 million from €613.9 million in 2Q’16, and by 65.1% from €385.5 million in 3Q’15. Average deal size in emerging market Europe decreased by 22.3% to €343.5 million in 3Q’16 from €442.2 million in 2Q’16 but increased by 7.7% y-o-y (€319.1 million in 3Q’15).

High yield issuance for refinancing and/or repayment of debt in developed market Europe decreased to €11.2 billion, representing 53.3% of all issuance by euro amount in 3Q’16, down from €13.2 billion (46.9% of total) in 2Q’16 and €1.6 billion (12.3% of total) in 3Q’15. In emerging market Europe, four deals totaling €0.8 billion were issued for refinancing and/or repayment of debt in the third quarter of 2016 after no deals for that purpose being issued in 2Q’16 and 3Q’15.

Three sectors accounted for over half of the total high yield issuance in 3Q’16: the telecommunications industry led issuance with €6.4 billion (26.9% of total), followed by machinery with €4.1 billion (17.4% of total) and finance with €1.9 billion (8.2% of total), with the remainder of the issuance in third quarter split among many industries.

The proportion of USD-denominated issuance decreased to 40.2% of all issuance by euro amount in 3Q’16 compared to 52.6% in 2Q’16 and 37.5% in 3Q’15. USD-denominated issuance in developed market Europe decreased to €7.7 billion or 36.7% of issuance by euro amount from €13.2 billion or 46.9% in 2Q’16 but up from €4.6 billion (35.9%) in 3Q’15. Of the issues priced in emerging market Europe €1.8 billion or 66.8% was denominated in USD, compared to €3.5 billion (98.6% of total) in 2Q’16 and €0.3 billion (100% in 3Q’15).

“US high yield distressed bonds led returns in the third quarter of 2016 with 12.4%”

“2 European high yield bond issuers defaulted in 3Q’16”

Returns & Credit Quality

The U.S. HY Distressed Index led returns in the third quarter of 2016 with 12.4% followed by MCSI Emerging Markets Index (8.3%) and U.S. HY Index (5.4%). Eighteen out of 20 asset classes examined recorded positive returns while U.S. Treasuries (-0.3%) and U.S. municipal bonds (-3.1%) recorded losses in 3Q’16.

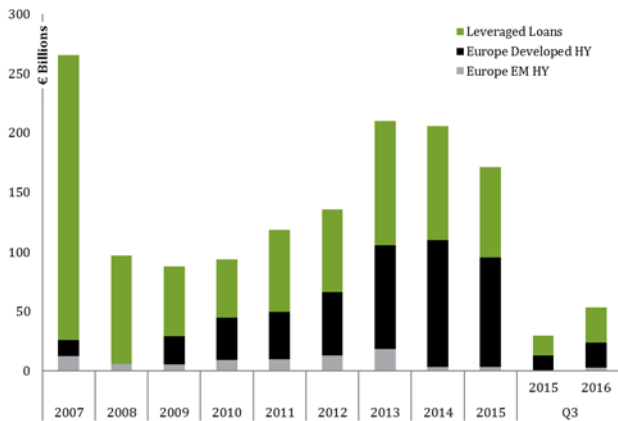
As of September 2016, S&P reported the trailing 12-month speculative-grade default rate at 1.9% (up from 1.8% end-June 2016) while Moody’s reported the default rate to be 2.2% (down from 2.5% end-June 2016).

Two bond related defaults were reported in the third quarter of 2016 due to debt exchange and distressed exchange (tendering of existing debt, at a discount, in exchange for new senior debt at a higher rate and an extended maturity).

According to S&P, in 3Q’16 downgrades exceeded upgrades in both developed market Europe (28 downgrades to 16 upgrades) and emerging market Europe (6 downgrades to 1 upgrade). Both upgrades and downgrades were distributed across the sector spectrum. Two sectors with the most rating actions in third quarter 2016 were telecommunications and utilities with 3 downgrades and 3 upgrades each.

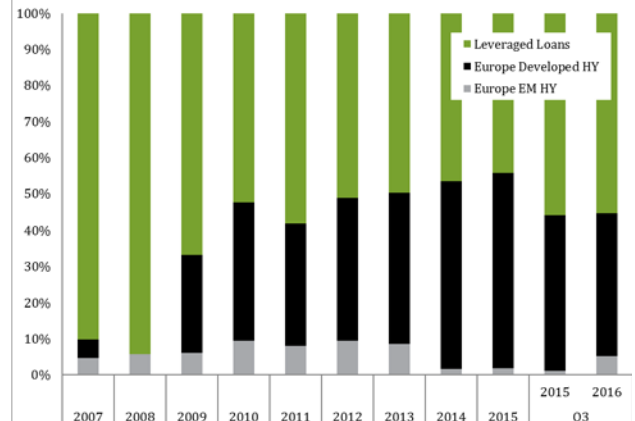
1 Leveraged Finance Overview

1.1 European Leveraged Issuance by Type



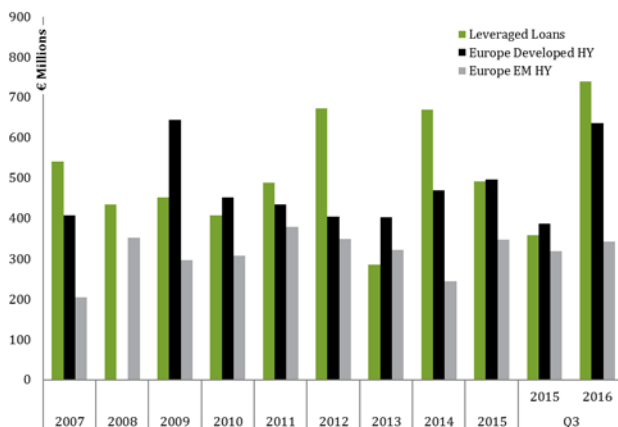
Source: Dealogic, Thomson Reuters LPC

1.2 European Leveraged Issuance Percentage



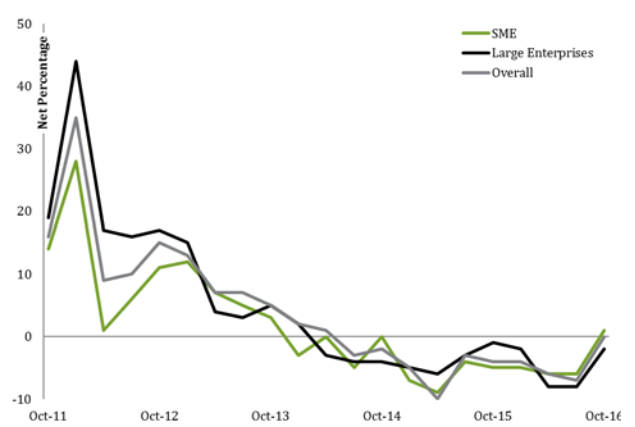
Source: Dealogic, Thomson Reuters LPC

1.3 European Leveraged Average Deal Size



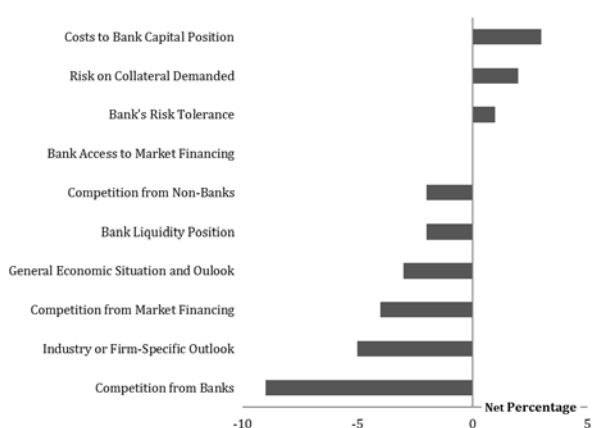
Source: Dealogic, Thomson Reuters LPC

1.4 Bank Credit Standards¹



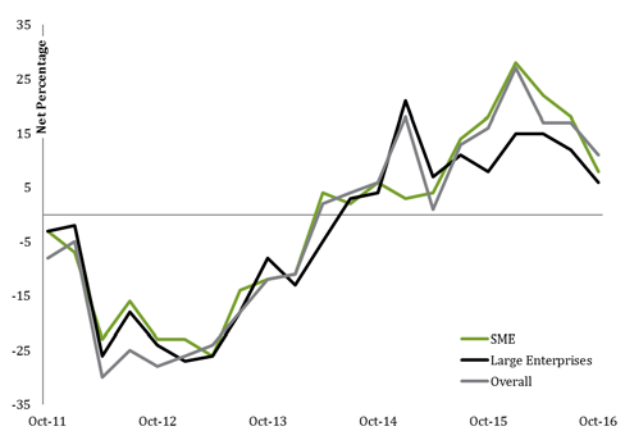
Source: ECB

1.5 Factors Affecting Bank Credit Standards²



Source: ECB

1.6 European Leveraged Issuance Percentage³

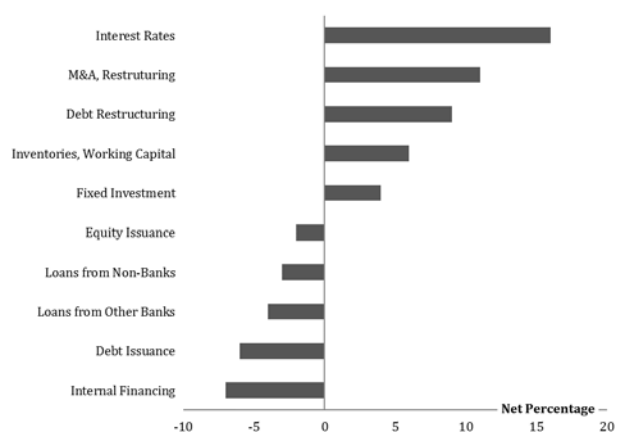


Source: ECB

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: July 2016⁴

Source: ECB

1.8 Global Comparison – High Yield Issuance

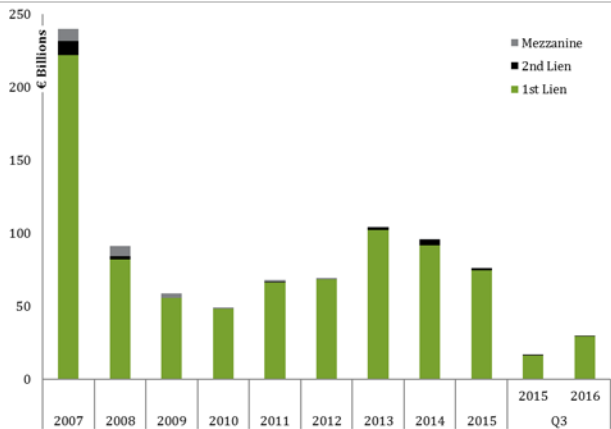
€ Billions	2016			2015					Prior Years		
	Q1	Q2	Q3	Q1	Q2	Q3	Q4	Full Year	2014	2013	2012
United States	32.44	54.33	47.10	61.21	70.71	29.70	30.53	192.1	185.7	196.8	213.3
Asia Pacific	26.47	17.02	22.85	9.64	10.83	13.56	6.82	40.9	38.0	42.1	30.2
Europe	14.02	39.03	28.04	42.20	35.85	18.37	20.75	117.2	125.2	122.5	81.9

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.

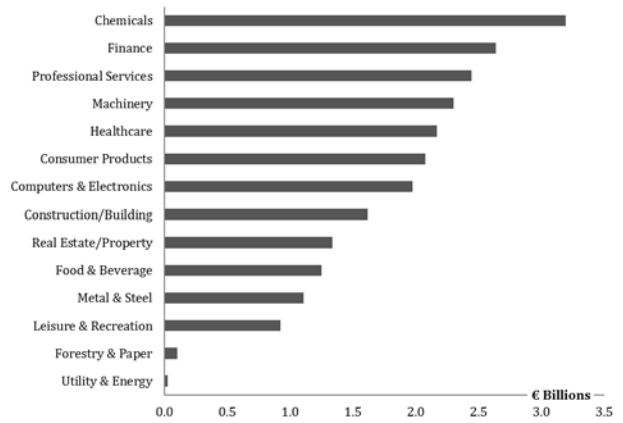
2 Issuance – Leveraged Loans

2.1 European Leveraged Loan Issuance By Type



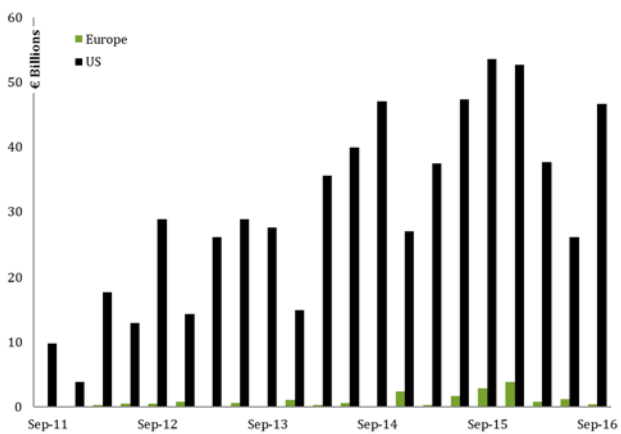
Source: Dealogic, Thomson Reuters LPC

2.2 European Leveraged Loan Issuance by Industry



Source: Dealogic

2.3 Forward Pipeline of Leveraged Loan Market



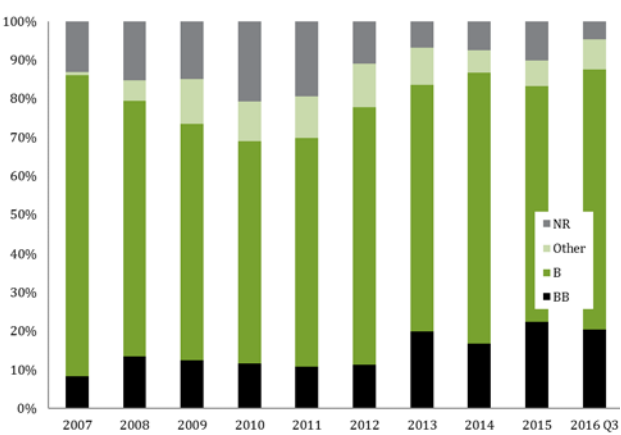
Source: Standard & Poor's LCD

2.4 ELLI Total Institutional Loans Outstanding



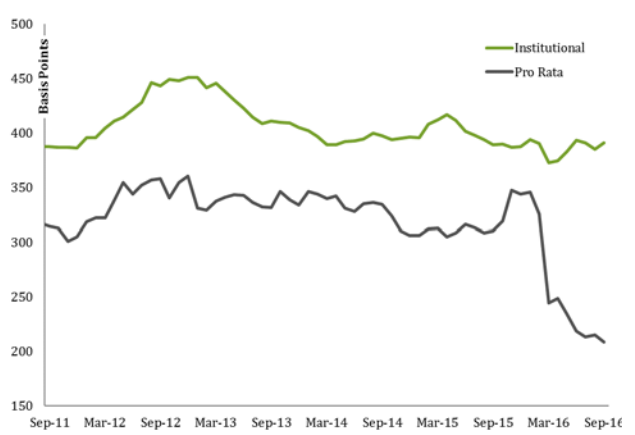
Source: Standard & Poor's LCD

2.5 ELLI Ratings Diversification



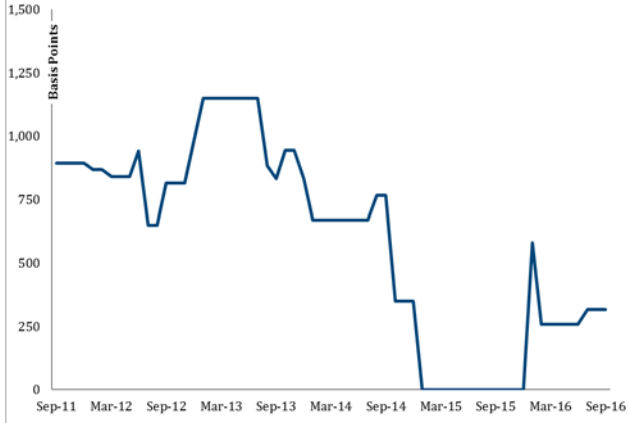
Source: Standard & Poor's LCD

2.6 Institutional and Pro Rata Spreads



Source: Thomson Reuters LPC/SMI

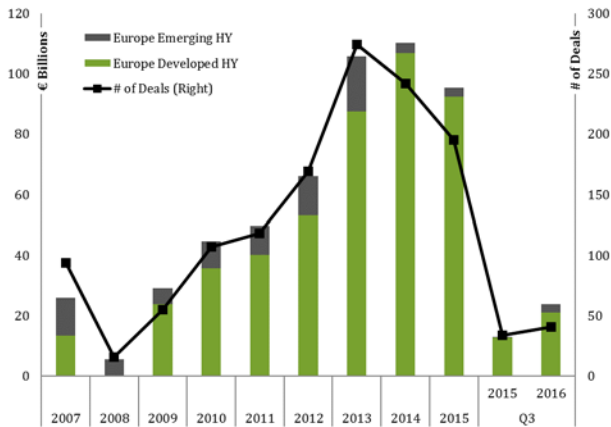
2.7 Mezzanine Spreads



Source: Dealogic, AFME, SIFMA

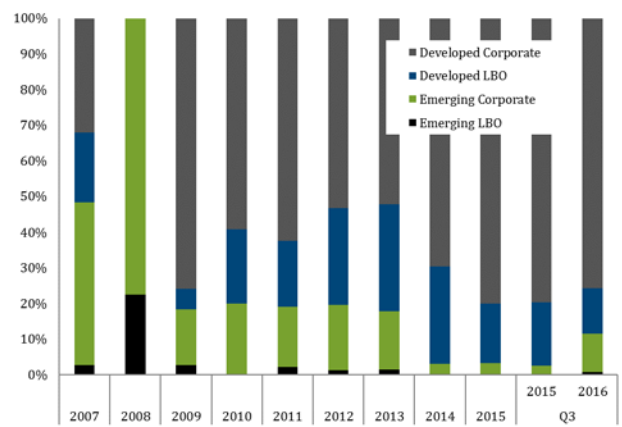
3 Issuance – High Yield Bonds Overview

3.1 European High Yield Issuance



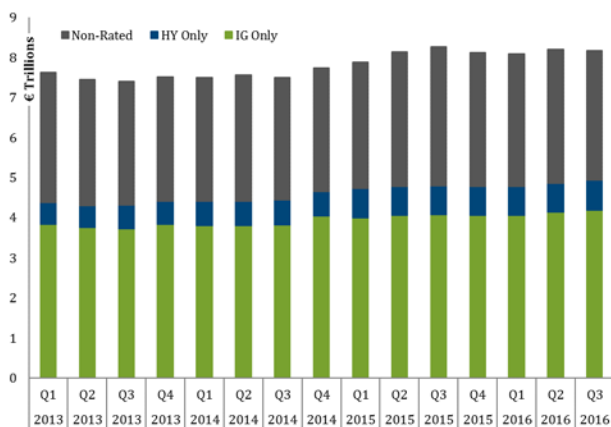
Source: Dealogic, Thomson Reuters LPC

3.2 European High Yield Issuance by Sponsor



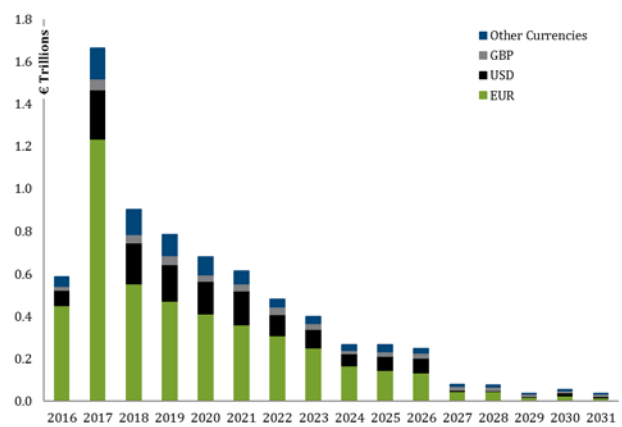
Source: Dealogic, Thomson Reuters LPC

3.3 European Corporate Bonds Outstanding



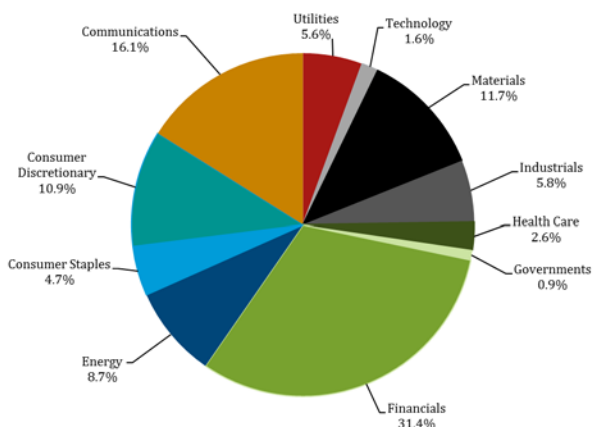
Source: Dealogic, Thomson Reuters LPC

3.4 European Corporate Bonds Maturity Wall



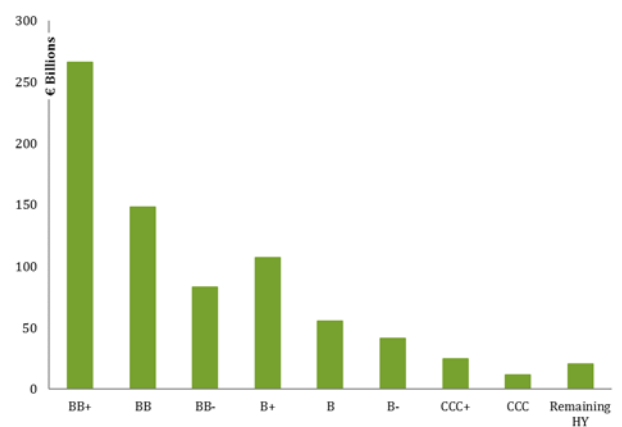
Source: Dealogic, Thomson Reuters LPC

3.5 European Corporate HY Bonds Outstanding By Sector



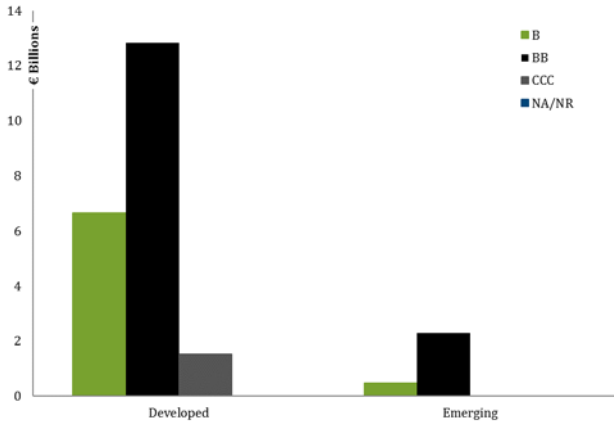
Source: Bloomberg, AFME, SIFMA

3.6 European Corporate HY Bonds Outstanding by Current Rating



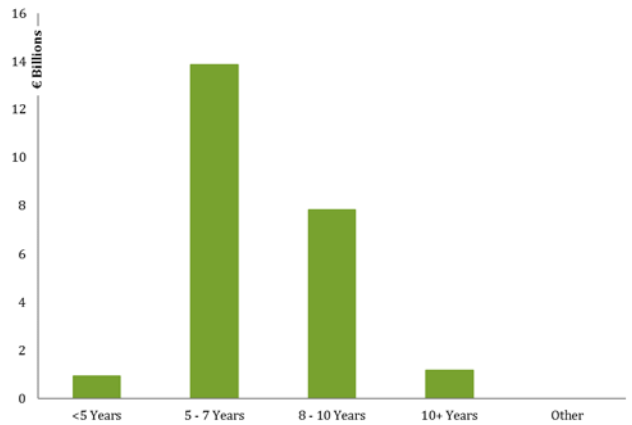
Source: Bloomberg, AFME, SIFMA

3.7 European Corporate Bond Issuance by Rating



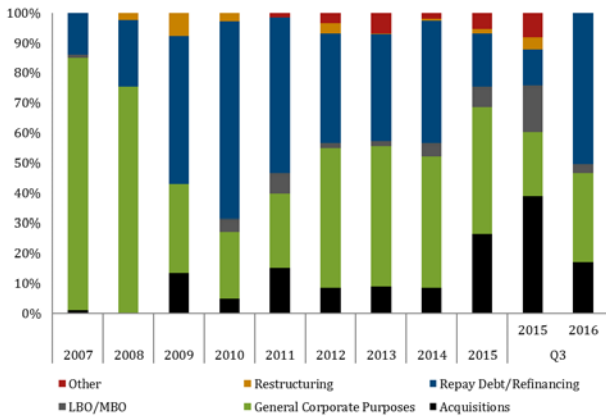
Source: Bloomberg, AFME, SIFMA

3.8 European Corporate Bond Issuance by Tenor



Source: Bloomberg, AFME, SIFMA

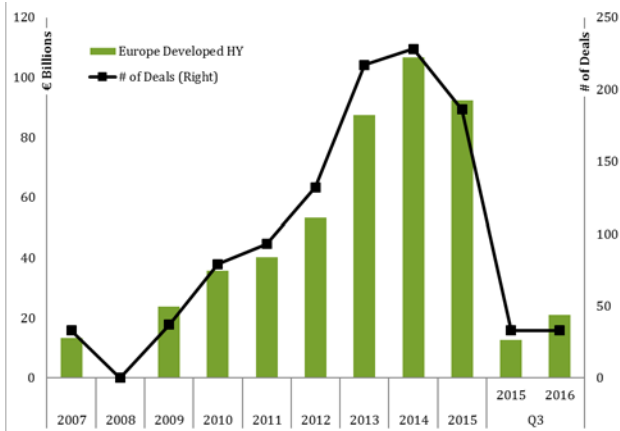
3.9 European HY Use of Proceeds



Source: Bloomberg, AFME, SIFMA

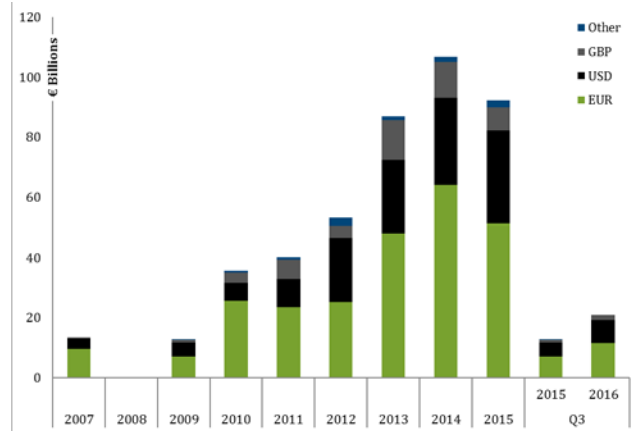
4 Issuance – European Developed Market High Yield Bonds

4.1 European Developed Market HY Bond Issuance



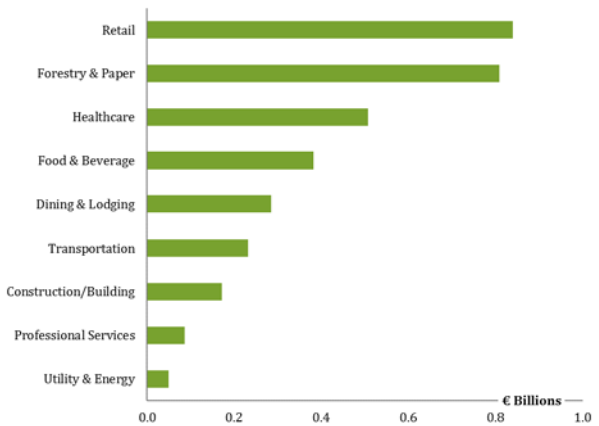
Source: Dealogic

4.2 European Developed Market HY Issuance by Currency



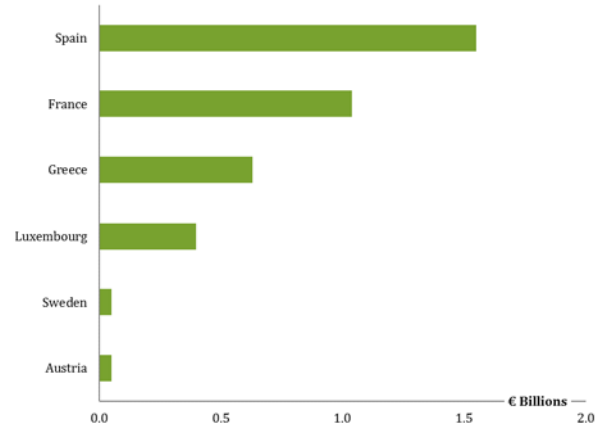
Source: Dealogic

4.3 European Developed Market HY Issuance by Industry



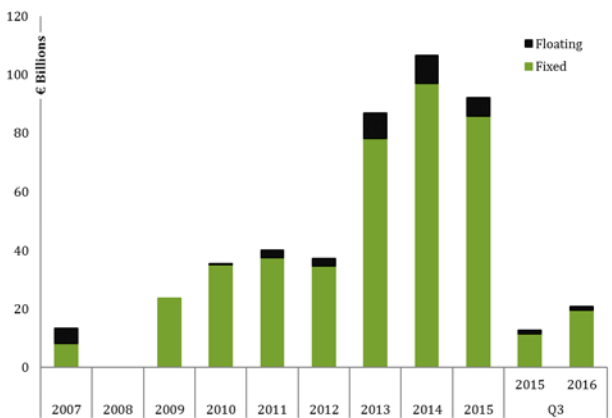
Source: Dealogic

4.4 European Developed Market HY Issuance by Country of Risk



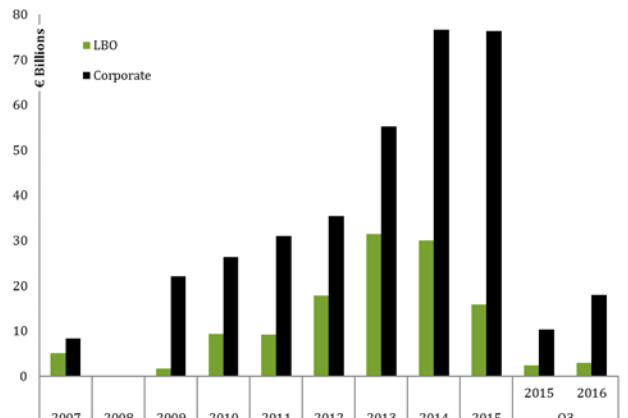
Source: Dealogic

4.5 European Developed Market HY Issuance, Fixed vs. Floating



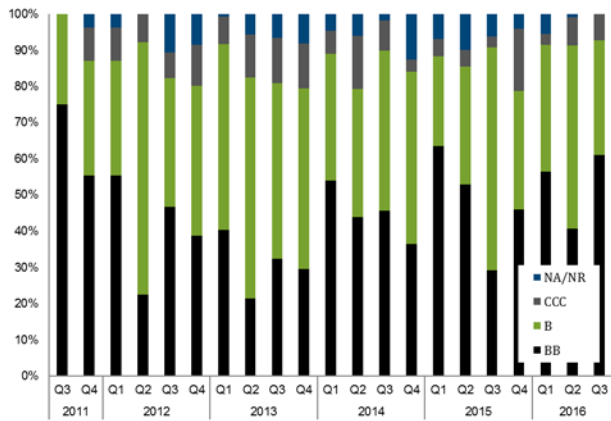
Source: Dealogic

4.6 European Developed Market HY Issuance, Sponsored vs. Corporate



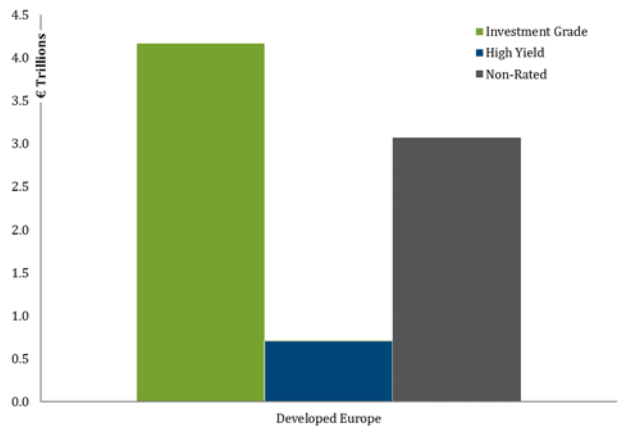
Source: Dealogic

4.7 European Developed Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

4.8 European Developed Market Corporate Bonds Outstanding



Source: Dealogic, AFME, SIFMA

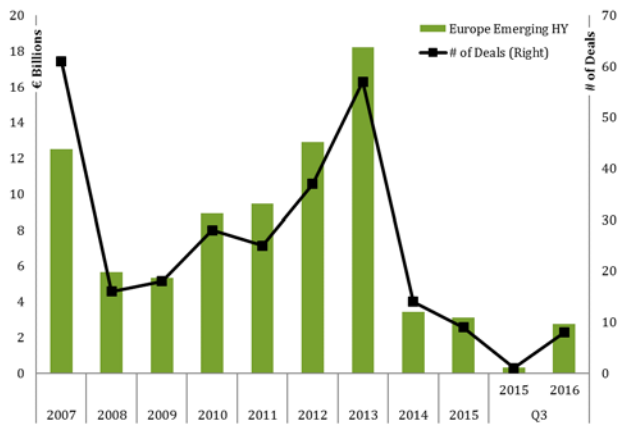
4.9 European Developed Market HY Bond Issuance

Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch
Salini Impregilo SpA	Construction/Building	11/07/2016	EUR	172		3.75	BB+	BB
Schumann SpA	Leisure & Recreation	14/07/2016	EUR	400		7.00	B1	B+
			EUR	325	3M EURIBOR +662.5	B1	B+	
Gamenet Group SpA	Leisure & Recreation	20/07/2016	EUR	200		6.00	B1	B
Naviera Armas SA	Transportation	22/07/2016	EUR	232	3M EURIBOR +650	B1	BB-	
Lecta SA	Forestry & Paper	22/07/2016	EUR	375		6.50	B3	B
			EUR	99	3M EURIBOR +637.5	B3	B	
			EUR	125	3M EURIBOR +637.5	B2	B	
IDH Finance plc	Healthcare	22/07/2016	GBP	275		6.25	B3	B
			GBP	150	3M LIBOR +600	B2	B	B+
ContourGlobal Power Holdings SA	Utility & Energy	22/07/2016	EUR	50		5.13	BB	BB-
Eircom Finance Designated Activity Co	Telecommunications	25/07/2016	EUR	200		4.50	B2	B
Ineos Group Holdings SA	Chemicals	26/07/2016	EUR	650		5.38	B3	B-
			USD	500		5.63	B3	B-
FAGE International SA	Food & Beverage	27/07/2016	USD	420		5.63	B1	BB-
NXP BV	Computers & Electronics	28/07/2016	USD	500		4.13	Ba1	BBB-
CNH Industrial NV	Machinery	04/08/2016	USD	600		4.50	Ba2	BB+
Saipem Finance International BV	Oil & Gas	01/09/2016	EUR	500		3.75	Ba1	BB+
			EUR	500		3.00	Ba1	BB+
Arrow Global Finance plc	Finance	01/09/2016	GBP	220		5.13	B1	BB
ARD Finance SA	Consumer Products	07/09/2016	EUR	845		6.63	Caa2	CCC+
			USD	770		7.13	Caa2	CCC+
Schaeffler Verwaltung Zwei GmbH	Machinery	08/09/2016	USD	500		4.75	Ba1	BB-
			EUR	750		3.75	Ba1	BB-
			USD	500		4.50	Ba1	BB-
			EUR	750		3.25	Ba1	BB-
			EUR	750		2.75	Ba1	BB-
			USD	500		4.13	Ba1	BB-
CSC Holdings LLC	Telecommunications	09/09/2016	USD	1,310		5.50	Ba1	BB-
Thom Europe SAS	Retail	14/09/2016	EUR	190		7.38	B2	B
Garfunkelux Holdco 3 SA	Finance	14/09/2016	EUR	230	3M EURIBOR +550	B2	B+	
Inmarsat Finance plc	Telecommunications	15/09/2016	USD	400		6.50	Ba2	BB+
Ziggo Secured Finance BV	Telecommunications	16/09/2016	USD	625		6.00	B2	B
			EUR	775		4.25	Ba3	BB-
			USD	2,000		5.50	Ba3	BB-
Intralot Capital Luxembourg SA	Computers & Electronics	16/09/2016	EUR	250		6.75	B1	B
Hoist Kredit AB	Finance	16/09/2016	EUR	50		3.13	Ba1	NA
eDreams ODIGEO SA	Computers & Electronics	20/09/2016	EUR	435		8.50	B3	B
Promontoria MCS SAS	Finance	21/09/2016	EUR	200	3M EURIBOR +575	B2	BB-	
Fnac SA	Retail	21/09/2016	EUR	650		3.25	Ba2	BB
Telecom Italia SpA	Telecommunications	23/09/2016	EUR	1,000		3.00	Ba1	BB+
NH Hotel Group SA	Dining & Lodging	23/09/2016	EUR	285		3.75	Ba3	BB-
Virgin Media Secured Finance plc	Telecommunications	29/09/2016	GBP	350		5.50	B	B+
Schoeller Allibert BV	Forestry & Paper	29/09/2016	EUR	210		8.00	B2	NA
Lake Bridge International plc	Professional Services	30/09/2016	GBP	75		8.00	B3	B+
Jerrold FinCo plc	Finance	30/09/2016	GBP	375		6.25	B+	BB-
DEA Finance SA	Oil & Gas	30/09/2016	EUR	400		7.50	B+	BB

Source: Bloomberg, Dealogic

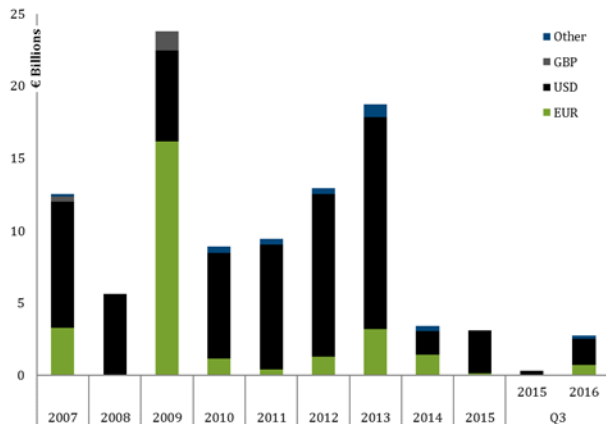
5 Issuance – European Emerging Market High Yield Bonds

5.1 European Emerging Market HY Bond Issuance



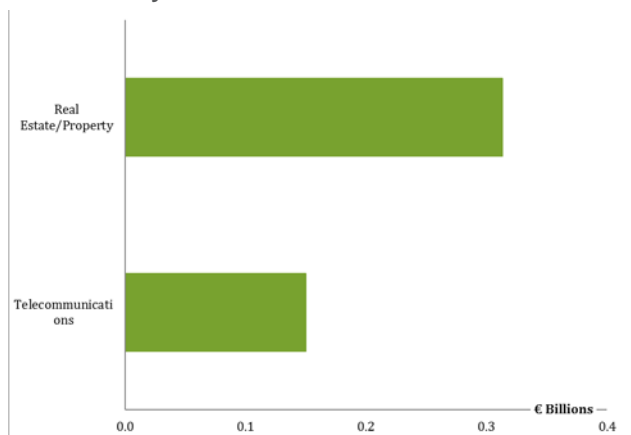
Source: Dealogic

5.2 European Emerging Market HY Bond Issuance by Currency



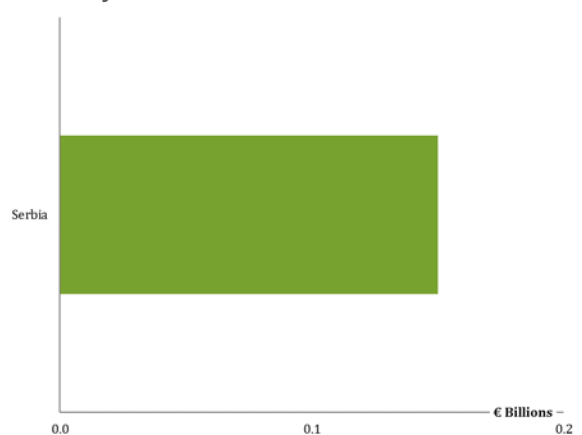
Source: Dealogic

5.3 European Emerging Market HY Issuance by Industry



Source: Dealogic

5.4 European Emerging Market HY Issuance by Country of Risk



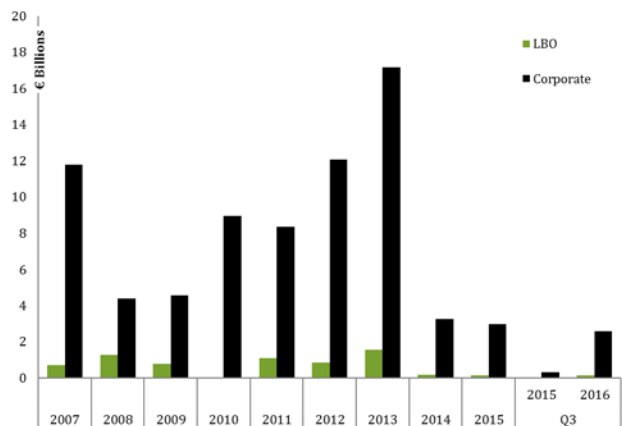
Source: Dealogic

5.5 European Emerging Market HY Issuance, Fixed vs. Floating



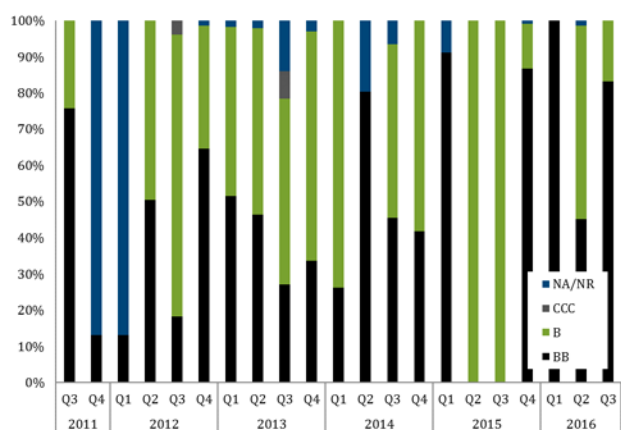
Source: Dealogic

5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate



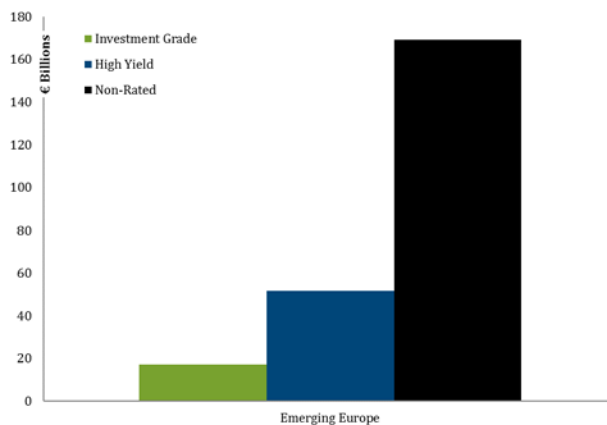
Source: Dealogic

5.7 European Emerging Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

5.8 European Emerging Market Corporate Bonds Outstanding



Source: Bloomberg, AFME, SIFMA

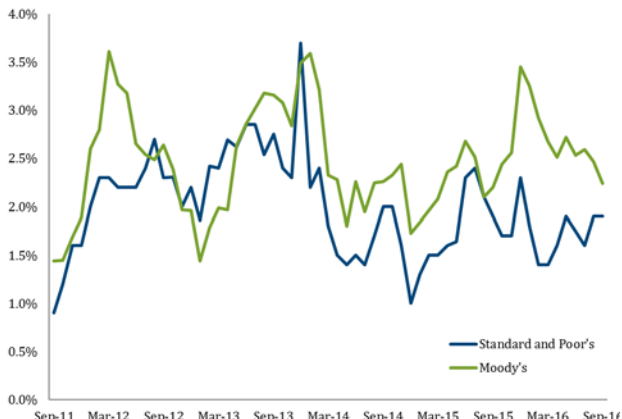
5.9 European Emerging Market HY Bond Issuance

Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moodys	S&P	Fitch
GTLK Europe Ltd	Finance	05/07/2016	USD	500	5.950	Ba3		BB-
United Group BV	Telecommunications	18/07/2016	EUR	150	7.875	B2	B	
Bank of Georgia Holdings plc	Finance	20/07/2016	USD	100	6.000	B1		BB-
			USD	250	6.000	B1		BB-
Bulgarian Energy Holding EAD	Holding Companies	27/07/2016	EUR	550	4.875	Ba2		BB-
Global Ports Investments plc	Transportation	16/09/2016	USD	350	6.500	Ba3		BB
O1 Properties Finance ZAO	Real Estate/Property	21/09/2016	USD	350	8.250	B1	B+	
Russian Railways OAO	Transportation	29/09/2016	USD	500	3.450		BB+	BBB-
		30/09/2016	RUB	15,000	9.200		BBB-	BBB-

Source: Bloomberg, Dealogic

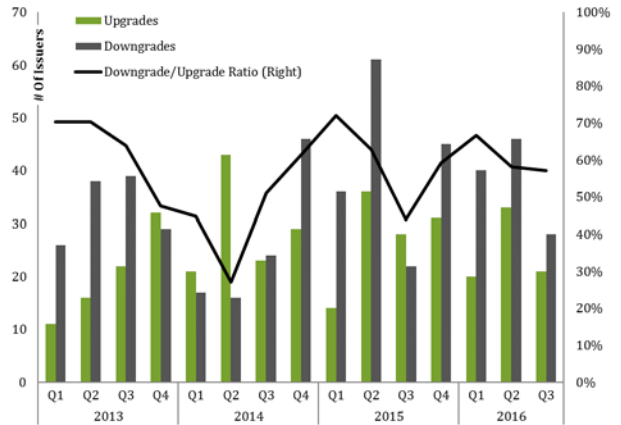
6 Credit Quality

6.1 European HY Default Rate



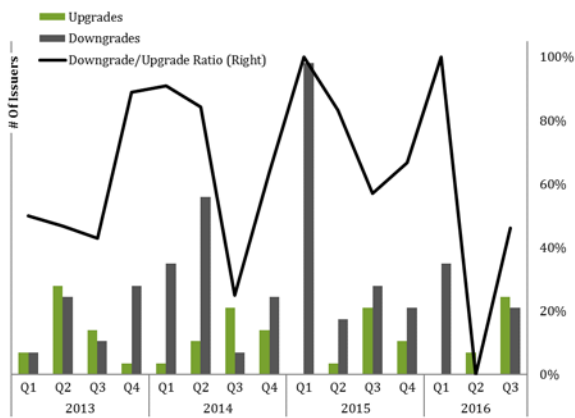
Source: Standard and Poor's and Moody's

6.2 Developed Europe Issuer Rating Actions⁵



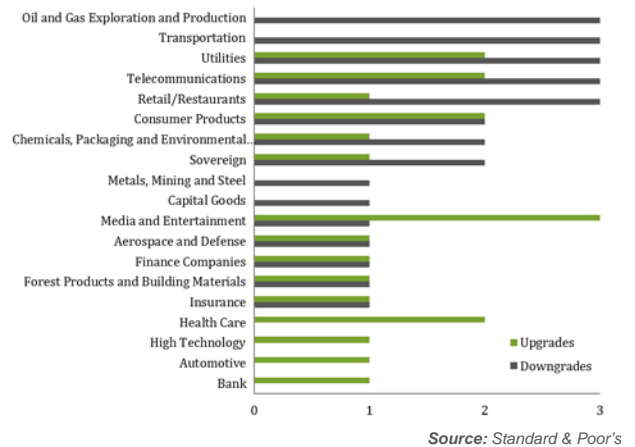
Source: Standard & Poor's

6.3 Emerging Europe Issuer Rating Actions⁶



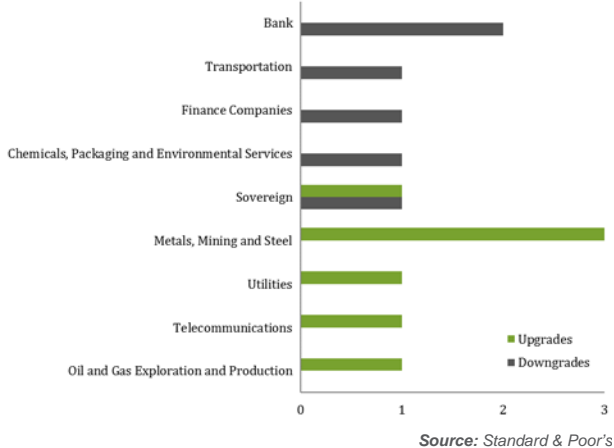
Source: Standard & Poor's

6.4 Developed European Industry Rating Actions by Number of Ratings



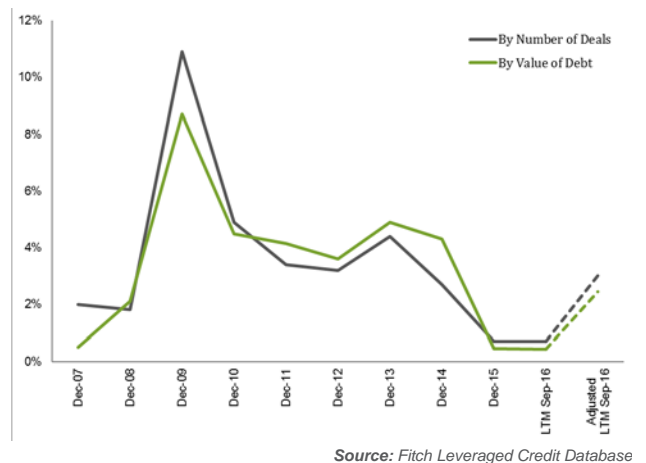
Source: Standard & Poor's

6.5 Emerging European Industry Rating Actions by Number of Ratings



Source: Standard & Poor's

6.6 European Leveraged Loan Default Rate⁷



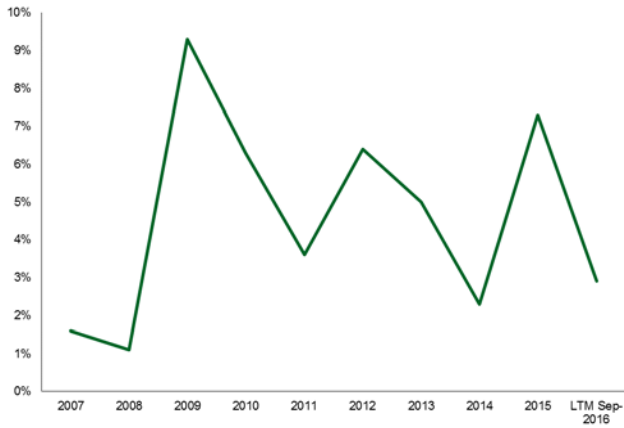
Source: Fitch Leveraged Credit Database

⁵ Numbers include both corporate and sovereigns.

⁶ Numbers include both corporate and sovereigns.

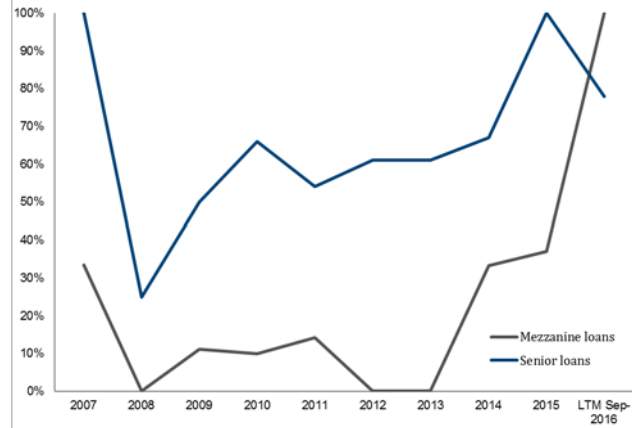
⁷ Includes c* and cc* rated issuers as if those had already defaulted

6.7 Mezzanine Loans Default Rate



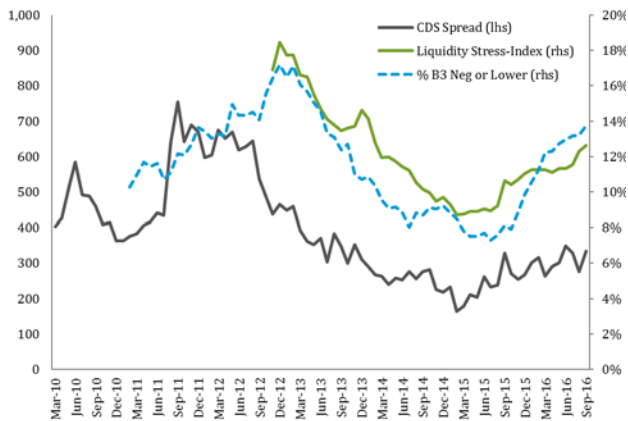
Source: Fitch Leveraged Credit Database

6.8 Mezzanine and Senior Loan Recovery Rates



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

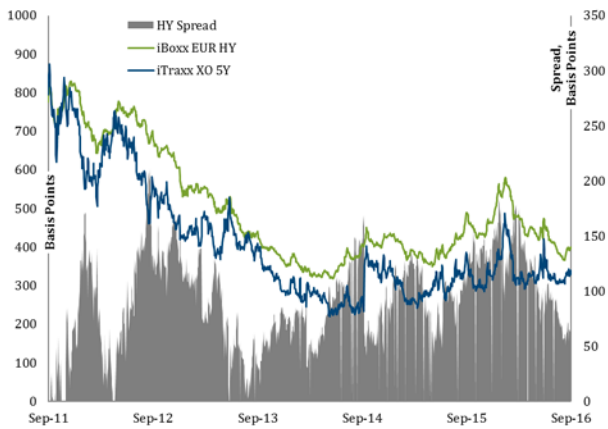
6.10 European Defaults

Issuer	Industry Group	Country	Date	Reported By	Reason
Sterling Mid-Holdings Ltd.	Finance companies	Jersey	August 2016	S&P	Distressed exchange
Intelsat S.A.	Telecommunications	Luxembourg	September 2016	S&P	Debt exchange

Source: Standard & Poor's, Moody's

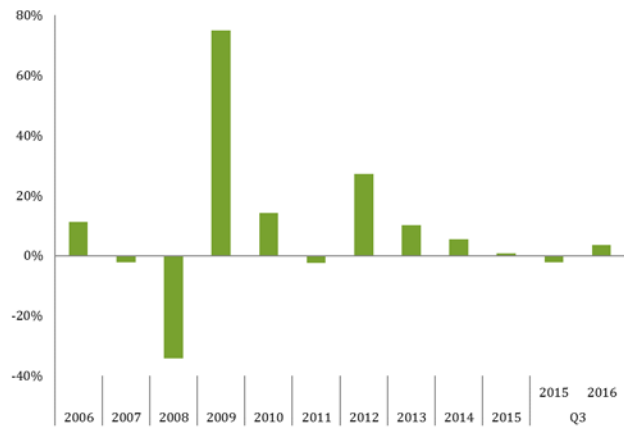
7 Relative Value and Total Return

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



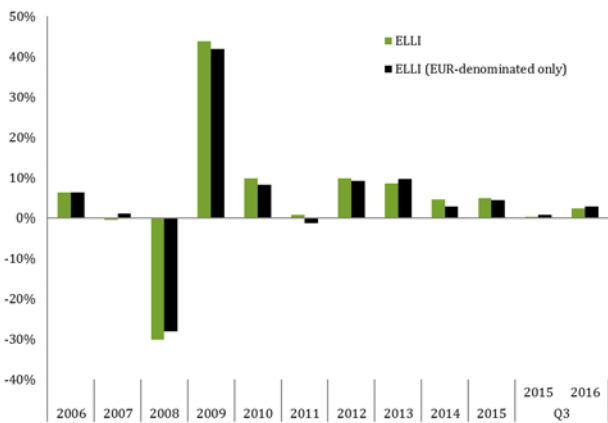
Source: Thomson Reuters Eikon, Markit

7.2 European HY Bond Total Return



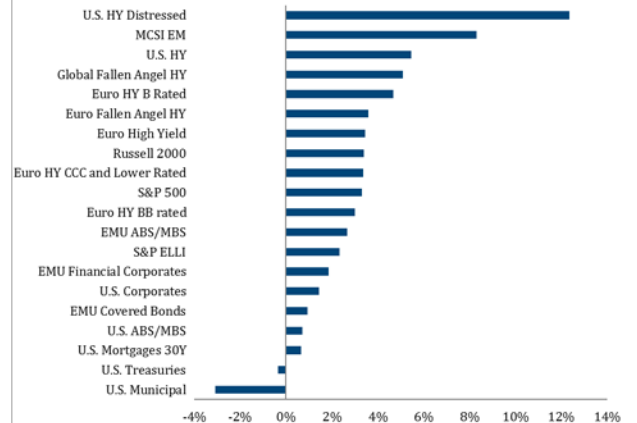
Source: BAML

7.3 European Leveraged Loan Total Return



Source: Standard & Poor's LCD

7.4 Asset Class Total Return, Quarter



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 Thomson Reuters LPC and Dealogic.

Leveraged loan data from Thomson Reuters LPC are defined primarily as having sub-investment grade ratings and/or a margin spread minimum of 200 basis points (spread minimums will vary from year to year to make Thomson LPC's cutoff). Leveraged loan aggregates will include first lien, second lien, and mezzanine financing. Discrepancies in Thomson Reuters LPC data are due to rounding and/or currency rate of exchange.

Leveraged loan data from Dealogic 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.

2. Issuance – Leveraged Loans

2.1. – 2.2.

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. Leveraged Loan Secondary Market Bids

European leveraged trading volumes are sourced from Thomson Reuters LPC and are percentage of volume by bid price.

2.7. – 2.8. 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. 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 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.

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

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.

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. European HY 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.

6.2. – 6.3. 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.

6.4. – 6.5. European Issuer Rating Actions by # of Rating Actions

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.

6.6. European Leveraged Loan Default Rate

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

6.7. 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

6.8. 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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