

# European High Yield & Leveraged Loan Report

## European Leveraged Finance

Q4: 2016



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## Highlights and Market Environment

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### Highlights

#### Issuance Highlights

European leveraged finance issuance (leveraged loans and high yield bonds) increased in 4Q'16 to €54.6 billion, a 2.5% increase from €53.3 billion in 3Q'16 and more than double the €25.6 billion issued in 4Q'15. The quarterly increase stems from the surge in leveraged loan issuance, which increased by 33.8% in the fourth quarter of 2016 while high yield bond issuance decreased by 36.5%; the high yield bond share of the leveraged finance market decreased to 27.6%, down from 44.5% in 3Q'16 and from 54.9% in 4Q'15.

For the full year 2016, European leveraged finance issuance reached €202.7 billion, an increase of 18.5% from €171.1 billion in 2015. Leveraged loan issuance increased by 60.4% y-o-y to €121.3 billion while high yield bond issuance decreased by 14.7% y-o-y to €81.3 billion in 2016.

#### Market and Economic Environment

According to the January 2017 European Central Bank lending survey, in the fourth quarter of 2016, loan growth continued to be supported by increasing demand across all loan categories and credit standards for loans to enterprises tightened in net terms, while credit standards for loans to households remained unchanged. The net easing of banks' overall terms and conditions on new loans continued across all loan categories, mainly driven by further narrowing of margins on average loans.

Net demand for loans to enterprises both large firms and small and medium-sized enterprises (SMEs), housing loans, and consumer credit continued to increase in 4Q'16. The low general level of interest rates continued to be a key factor behind the increase in demand for all loan types.

For loans to enterprises, credit standards tightened somewhat in net terms in the fourth quarter of 2016. Across firm sizes, credit standards tightened for loans to SMEs, while they remained broadly unchanged for loans to large firms. Across the large euro area countries, credit standards on loans to enterprises remained unchanged, except in the Netherlands, where they tightened considerably.

For loans to households, banks in all large euro area countries reported unchanged credit standards in 4Q'16.

Looking ahead to the first quarter of 2017, euro banks expect an increase in net demand for all loan categories, as well as a net easing of credit standards on loans to enterprises and to households.

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*“European leveraged finance issuance (leveraged loans and high yield bonds) reached €202.7 billion in 2016”*

*“Leveraged loan issuance totaled €121.3 billion on 178 deals in 2016”*

**Issuance**

**Issuance: Leveraged Loans**

Leveraged loan issuance, including first lien, second lien, and mezzanine financing, increased to €39.6 billion in the fourth quarter of 2016, up 33.8% q-o-q (€29.6 billion in 3Q’16) and up 242.0% y-o-y (€11.6 billion in 4Q’15). For the full year 2016, €121.3 billion in leveraged loans were issued, up 60.4% from €75.7 billion in 2015 and the highest issuance volume since €239.7 billion in 2007.

In the fourth quarter of 2016, €12.9 billion of amend-and-extend (“A&E”) loans were financed, a large increase from both €2.7 billion in 3Q’16 and €0.9 billion in 4Q’15. Despite the surge in 4Q’16, A&E loans issuance fell by 20.7% to €18.5 billion in 2016 from €23.3 billion in 2015.

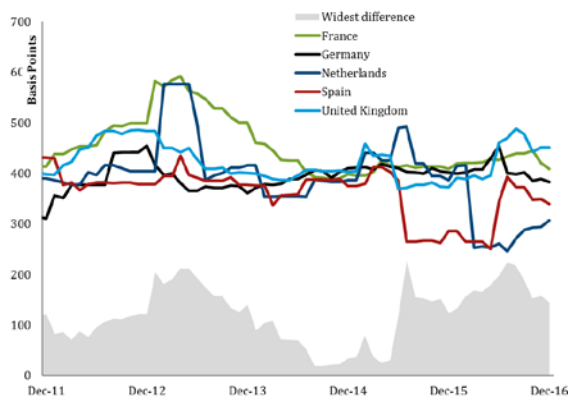
There were no mezzanine loans and four 2<sup>nd</sup> lien loans financed in 4Q’16. Pricing spreads for institutional loans tightened by 15 basis points (bps) q-o-q and by 12 bps y-o-y, spreads for mezzanine loans remained flat q-o-q but increased by 316 bps y-o-y, while spreads for pro rata loans widened by 3 bps q-o-q but tightened by 132 bps y-o-y. For the full year 2016, only one mezzanine loan was issued (€0.1 billion) with €1.3 billion in 2<sup>nd</sup> lien loans and the remainder €120.0 billion in 1<sup>st</sup> lien loans.

According to Dealogic, the top three sectors in leveraged loan issuance in the fourth quarter of 2016 accounted for over half of the issuance volume; the leading sector was telecommunications (€8.8 billion), followed by food & beverage (€6.4 billion), and computers & electronics (€6.1 billion). For the full year 2016, the top three sectors in leveraged loan issuance were chemicals (€28.7 billion), followed by telecommunications (€13.8 billion) and computers & electronics (€12.0 billion).

The share of deals used to refinance and/or repay debt increased to 74.4% of all deals by euro amount in the fourth quarter of 2016, compared to 69.9% in 3Q’16 and 35.9% in 4Q’15. Refinancing and/or repayment of debt were the largest use of proceeds in 4Q’16 with €29.4 billion followed by leveraged buyouts with €6.0 billion or 15.1% of total and acquisitions with €2.9 billion or 7.4% of total. For the full year 2016, the top use of proceeds mirrored 4Q’16: refinancing and/or repaying of debt (\$65.6 billion or 54.1% of 2016 total), leveraged buyouts (\$25.9 billion or 21.4%), and acquisitions (\$24.4 billion or 20.1%).

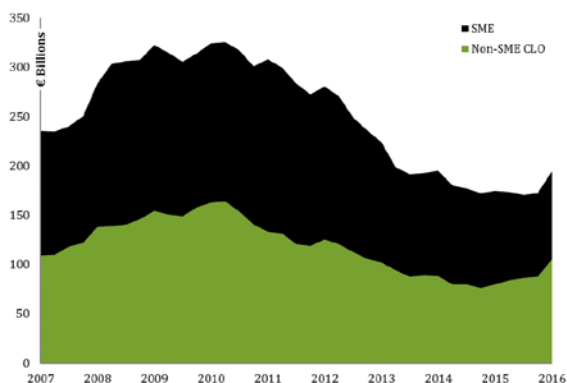
European CLO outstandings, including SME deals, increased by 13.0% to €194.6 billion in 4Q’16 from €172.2 billion. Non-SME CLOs increased by 19.8% to €105.0 billion in 4Q’16 while SME CLOs increased by 6.0% to €89.6 billion. Year-over-year, SME CLOs increased by 31.2% while SME CLOs decreased by 5.3%.

**Institutional Spreads**



Source: Dealogic, AFME, SIFMA

**European CLO Outstanding**



Source: AFME, SIFMA

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*“Primary high yield issuance totaled €81.3 billion on 159 deals in 2016”*

**Issuance: High Yield Bonds**

Primary high yield issuance in 4Q'16 totaled €15.1 billion on 42 deals, a 36.5% decrease from 3Q'16 (€23.7 billion on 41 deals) but a 7.1% increase from 4Q'15 (€14.1 billion on 38 deals). For the full year 2016, primary high yield issuance totaled €81.3 billion, down 14.7% from €95.4 billion in 2015.

Primary high yield issuance in developed market Europe in the fourth quarter of 2016 was €10.2 billion on 30 deals, a 51.6% decrease from 3Q'16 (€21.0 billion on 33 deals) and a 16.6% decrease from 4Q'15 (€12.2 billion on 33 deals). For the full year 2016, primary high yield issuance in developed market Europe totaled €68.8 billion, a 25.5% decrease from €92.3 billion in 2015.

In emerging market Europe primary high yield issuance in 4Q'16 was €4.9 billion on 12 deals, an increase of 78.7% from 3Q'16 (€2.7 billion on 8 deals) and an increase of 158.9% from 4Q'15 (€1.9 billion on 5 deals). For the full year 2016, primary high yield issuance in emerging market Europe totaled €12.6 billion, a fourfold increase from €3.1 billion in 2015.

In the fourth quarter of 2016, average deal size in developed market Europe decreased by 46.8% to €338.8 million from €636.2 million in 3Q'16 and by 8.2% from €369.2 million in 4Q'15. Average deal size in emerging market Europe increased by 19.1% to €409.2 million in 4Q'16 from €343.5 million in 3Q'16 and by 7.9% y-o-y (€379.4 million in 4Q'15). For the full year 2016, the average deal size was €533.2 million in developed market Europe and €418.4 million in emerging market Europe, up 7.5% and 20.4%, respectively, from 2015.

High yield issuance for refinancing and/or repayment of debt in developed market Europe decreased to €4.9 billion, representing 48.3% of all issuance in 4Q'16, down from €11.2 billion (53.3% of total) in 3Q'16 but up from €1.4 billion (11.4% of total) in 4Q'15. In emerging market Europe, €0.7 billion was issued for refinancing and/or repayment of debt in the fourth quarter of 2016 down from €0.8 billion in 3Q'16 but up from no deals issued for that purpose in 4Q'15. For the full year 2016, high yield issuance for refinancing and/or repayment of debt was €31.7 billion in developed market Europe and €1.4 billion in emerging market Europe, up 89.0% and 854.7%, respectively, from 2015.

Three sectors accounted for almost half of the total high yield issuance in 4Q'16: the finance industry led issuance with €2.8 billion (18.6% of total), followed by leisure & recreation with €1.9 billion (12.5% of total) and oil & gas with €1.8 billion (12.2% of total), with the remainder of the issuance in fourth quarter split among many industries. For the full year 2016, telecommunications industry led high yield issuance with €19.3 billion, followed by finance (€9.0 billion) and consumer products (€5.7 billion).

The proportion of USD-denominated issuance decreased to 29.0% of all issuance in 4Q'16 compared to 40.2% in 3Q'16 and 36.8% in 4Q'15. USD-denominated issuance in developed market Europe decreased to €1.3 billion or 12.6% of issuance from €7.7 billion or 36.7% in 3Q'16 and €3.3 billion (27.0%) in 4Q'15. Of the issues priced in emerging market Europe, €3.1 billion or 63.0% was denominated in USD, compared to €1.9 billion (66.8% of total) in 3Q'16 and €1.9 billion (100% of total) in 4Q'15. For the full year 2016, USD-denominated deals totaled €33.8 billion and accounted for 41.6% of total issuance, almost unchanged from €33.9 billion, or 35.5% of total, in 2015.

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*“US high yield distressed bonds led returns in 2016 with total return of 54.2%”*

### Returns & Credit Quality

The U.S. HY Distressed Index led returns in the fourth quarter of 2016 with 9.2%, followed by Russell 2000 (8.4%) and S&P 500 (3.3%). The worst performing asset classes in 4Q'16 were MSCI Emerging Markets Index (-4.6%), U.S. Treasuries (-4.0%) and U.S. municipal bonds (-3.5%). All asset classes analysed recorded positive returns in the full year 2016. U.S. HY Distressed Index led returns with 54.2%, followed by Russel 2000 with 19.5% and Global Fallen Angel HY Index with 19.2%. The lowest returns were recorded by U.S. municipal bonds (0.4%), U.S. Treasuries (1.1%) and U.S. 30-year mortgages (1.8%).

As of December 2016, S&P reported the trailing 12-month speculative-grade default rate at 1.7% (down from 1.9% end-September 2016 and 2.3% end-December 2015) while Moody's reported the default rate to be 2.1% (down from 2.5% end-September 2016 and 3.6% end-December 2015).

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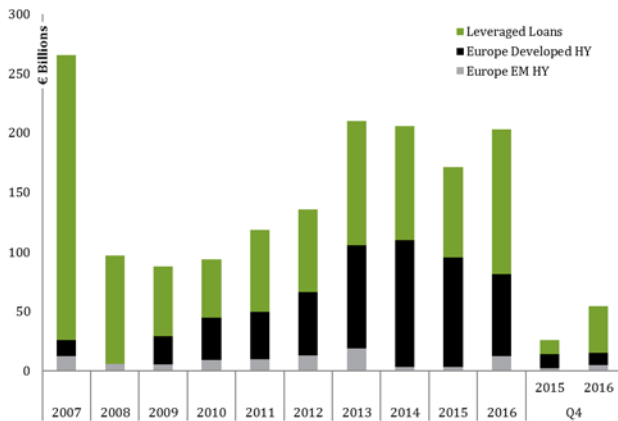
*“24 European high yield bond issuers defaulted in 2016”*

Eleven bond-related defaults were reported in the fourth quarter of 2016, seven in developed market Europe and four in emerging market Europe. For the full year 2016, 24 European high yield issuers defaulted, 16 in developed market Europe and eight in emerging market Europe.

According to S&P, in 4Q'16 downgrades exceeded upgrades both in developed market Europe (33 downgrades to 26 upgrades) and in emerging market Europe (7 downgrades to 6 upgrades). Three sectors accounted for almost half of the rating actions in 4Q'16: oil and gas (total of 1 upgrade and 13 downgrades) followed by bank (7 upgrades and 5 downgrades) and media and entertainment (4 upgrades and 3 downgrades). For the full year 2016, downgrades exceeded upgrades with 147 to 100, respectively in developed market Europe and 23 to 15 in emerging market Europe. Across both markets the number of upgrades decreased slightly to 115 in 2016 from 119 in 2015 while number of downgrades dropped sharply to 170 in 2016 from 211 in 2015 resulting in a much smaller downgrade to upgrade ratio in 2016.

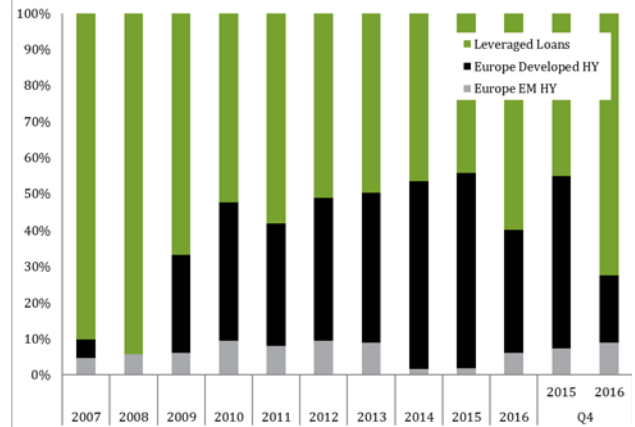
# 1 Leveraged Finance Overview

## 1.1 European Leveraged Issuance by Type



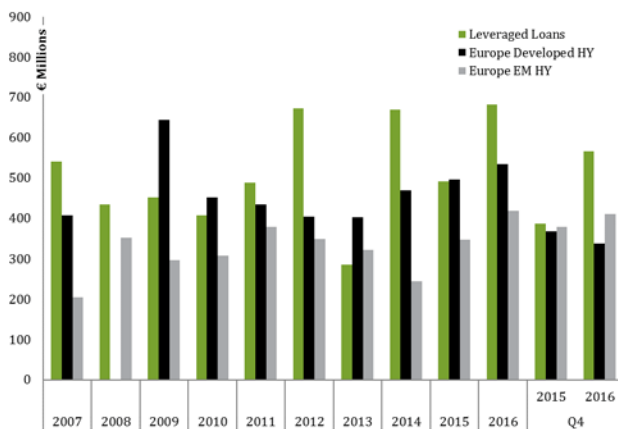
Source: Dealogic, Thomson Reuters LPC

## 1.2 European Leveraged Issuance Percentage



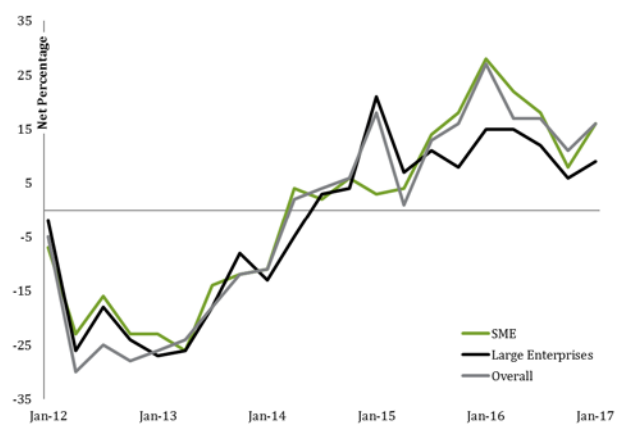
Source: Dealogic, Thomson Reuters LPC

## 1.3 European Leveraged Average Deal Size



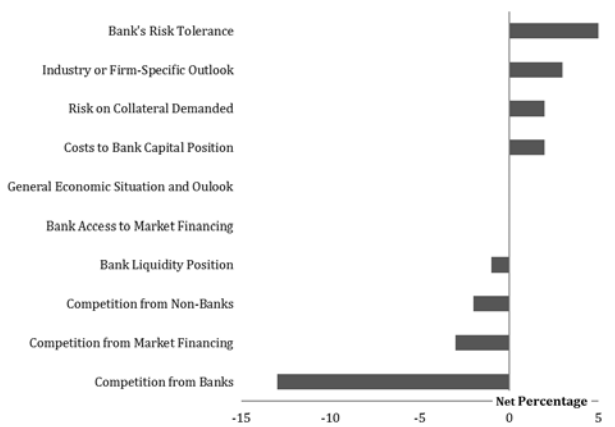
Source: Dealogic, Thomson Reuters LPC

## 1.4 Bank Credit Standards<sup>1</sup>



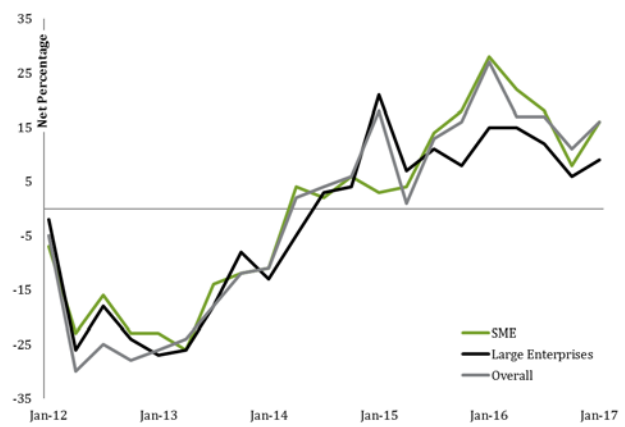
Source: European Central Bank

## 1.5 Factors Affecting Bank Credit Standards: January 2017<sup>2</sup>



Source: European Central Bank

## 1.6 European Leveraged Issuance Percentage<sup>3</sup>



Source: European Central Bank

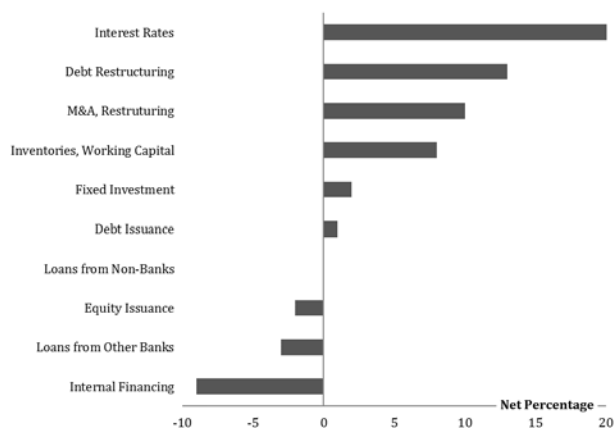
<sup>1</sup> A positive net percentage number signifies tightening bank credit; a negative net percentage number signifies easing credit.

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

<sup>3</sup> A positive net percentage signifies increased demand; a negative net percentage signifies decreased demand.



1.7 Factors Affecting Loan Demand: January 2017<sup>4</sup>



Source: European Central Bank

1.8 Global Comparison – High Yield Issuance

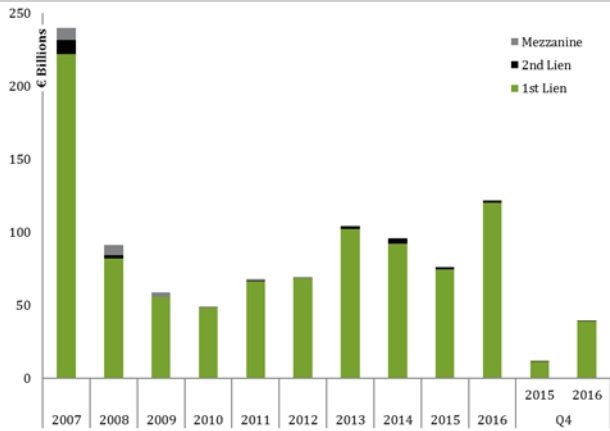
€ Billions	2016					2015					Prior Years		
	Q1	Q2	Q3	Q4	Full Year	Q1	Q2	Q3	Q4	Full Year	2014	2013	2012
<b>United States</b>	33.71	54.22	49.38	37.44	174.8	60.86	70.89	29.70	30.53	192.0	185.7	196.8	214.8
<b>Asia Pacific</b>	26.50	17.25	21.14	16.08	81.0	9.91	10.51	13.50	6.98	40.9	36.0	42.7	32.2
<b>Europe</b>	12.95	39.40	28.44	18.43	99.2	41.83	35.94	18.27	20.82	116.9	124.7	122.5	80.5

Source: Dealogic

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

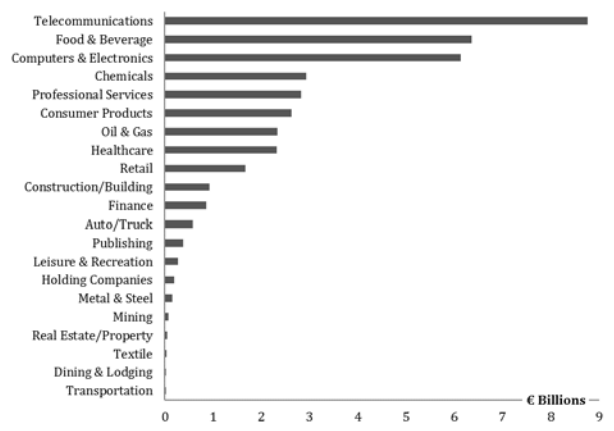
## 2 Issuance – Leveraged Loans

### 2.1 European Leveraged Loan Issuance By Type



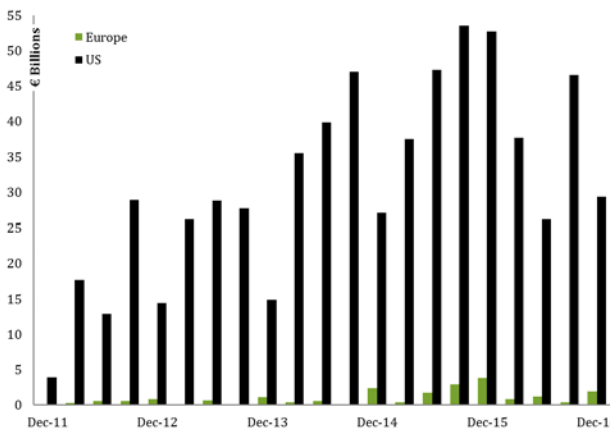
Source: Dealogic, Thomson Reuters LPC

### 2.2 European Leveraged Loan Issuance by Industry



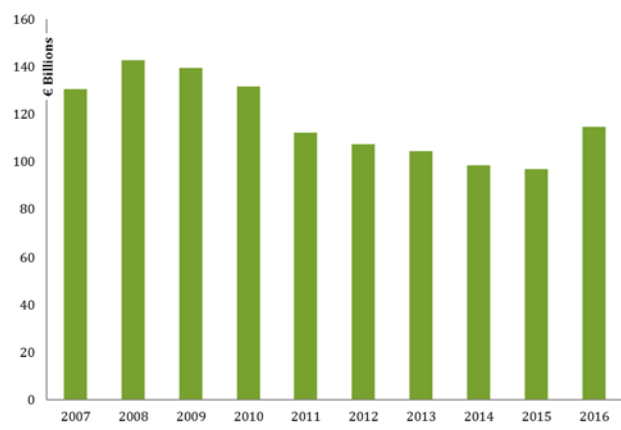
Source: Dealogic

### 2.3 Forward Pipeline of Leveraged Loan Market



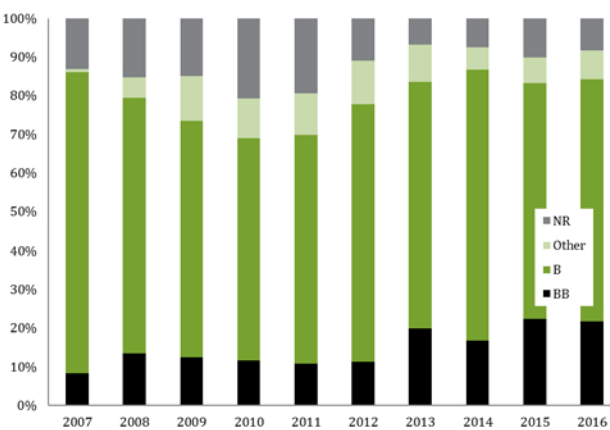
Source: Standard & Poor's LCD

### 2.4 ELLI Total Institutional Loans Outstanding



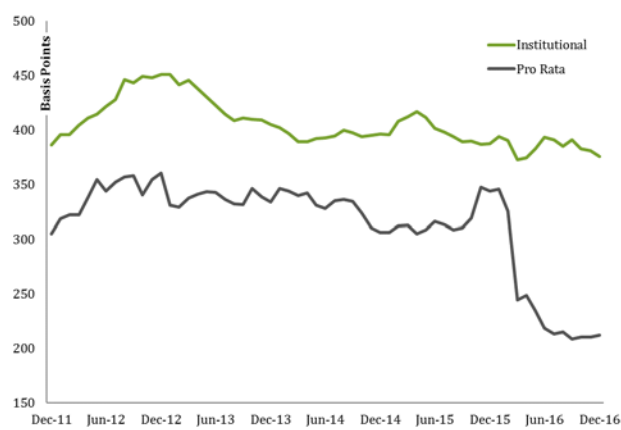
Source: Standard & Poor's LCD

### 2.5 ELLI Ratings Diversification



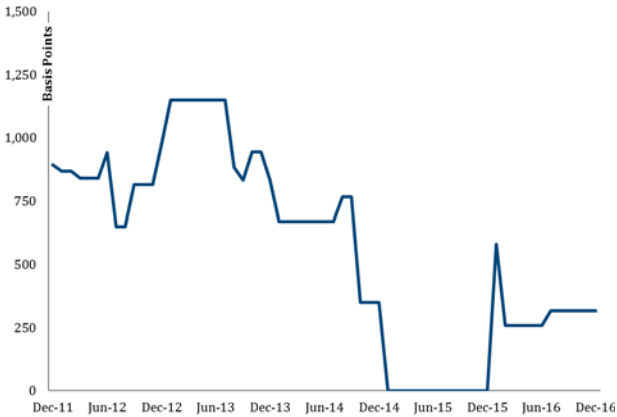
Source: Standard & Poor's LCD

### 2.6 Institutional and Pro Rata Spreads



Source: Thomson Reuters LPC/SMI

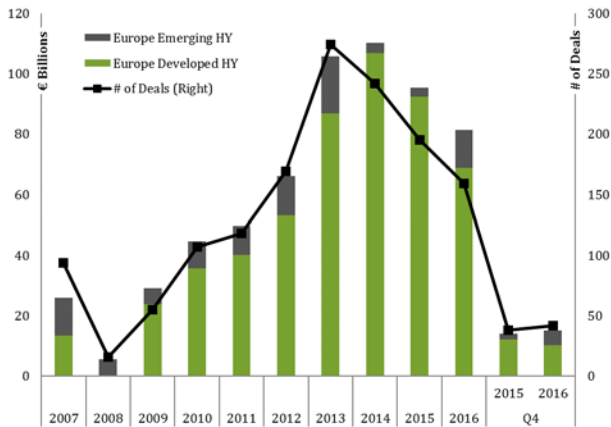
2.7 Mezzanine Spreads



Source: Dealogic, AFME, SIFMA

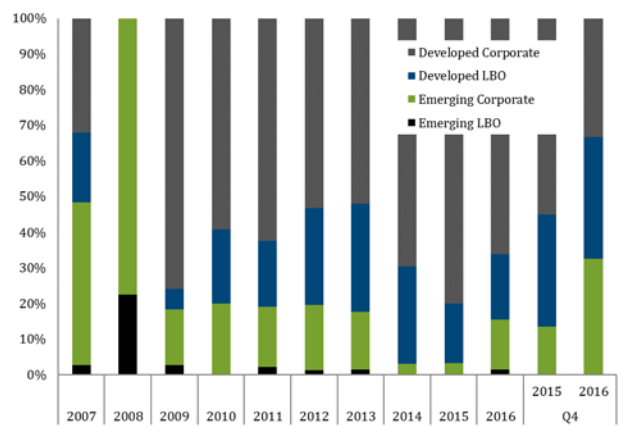
### 3 Issuance – High Yield Bonds Overview

#### 3.1 European High Yield Issuance



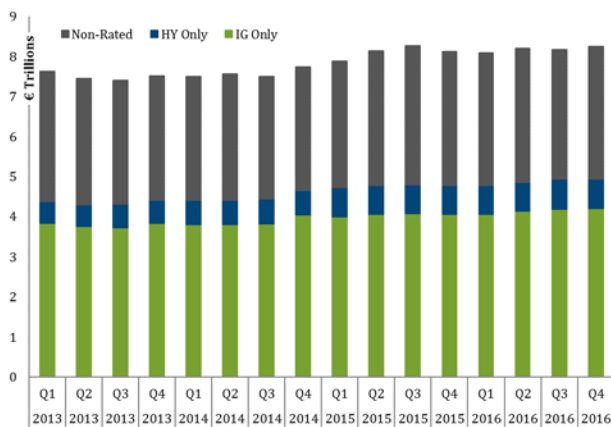
Source: Dealogic, Thomson Reuters LPC

#### 3.2 European High Yield Issuance by Sponsor



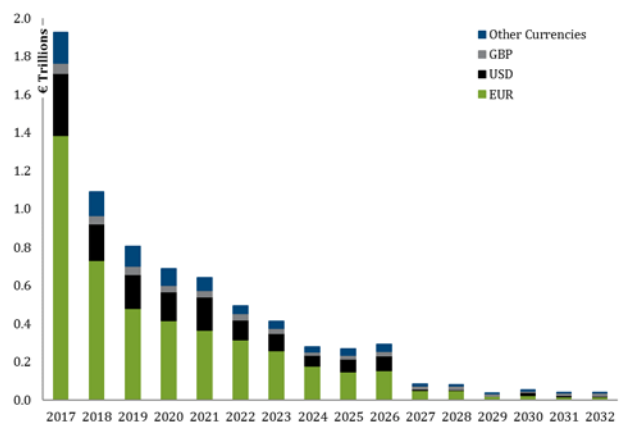
Source: Dealogic, Thomson Reuters LPC

#### 3.3 European Corporate Bonds Outstanding



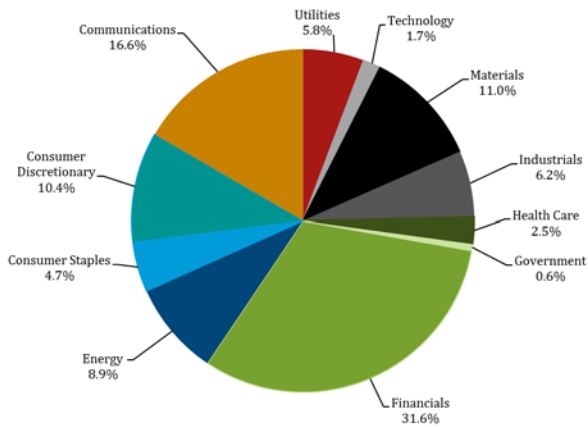
Source: Dealogic, Thomson Reuters LPC

#### 3.4 European Corporate Bonds Maturity Wall: December 2016



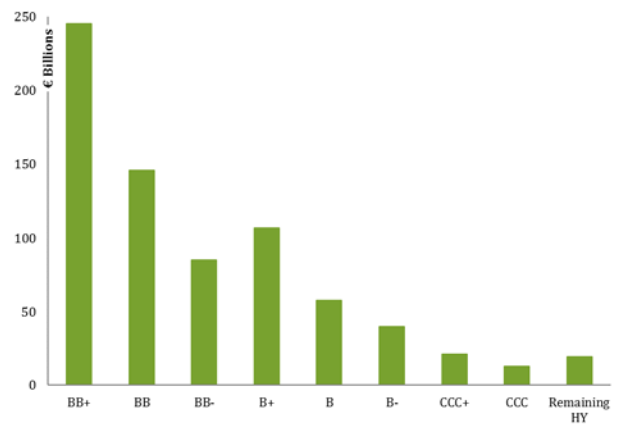
Source: Dealogic, Thomson Reuters LPC

#### 3.5 European Corporate HY Bonds Outstanding By Sector: 4Q 2016



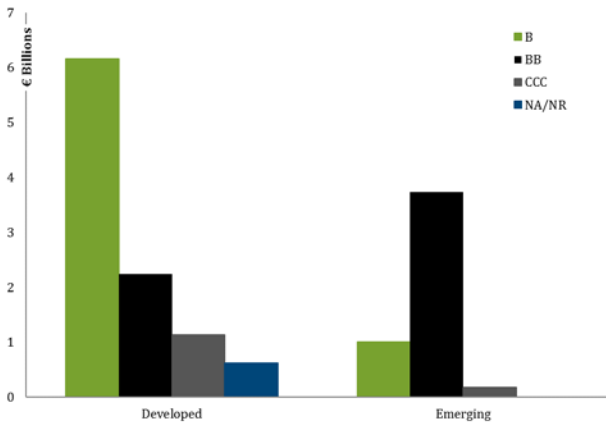
Source: Bloomberg, AFME, SIFMA

#### 3.6 European Corporate HY Bonds Outstanding by Current Rating: December 2016



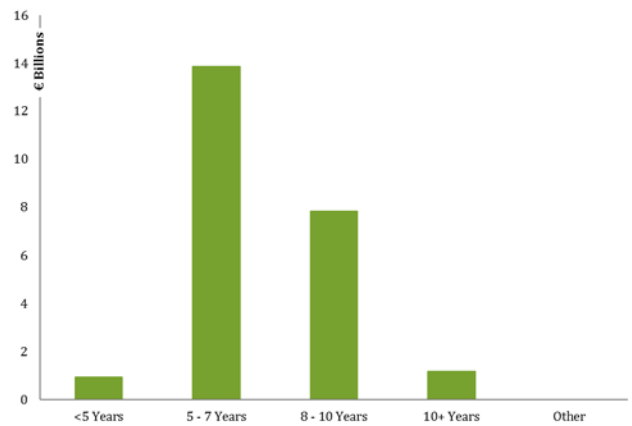
Source: Bloomberg, AFME, SIFMA

3.7 European Corporate Bond Issuance by Rating: 4Q 2016



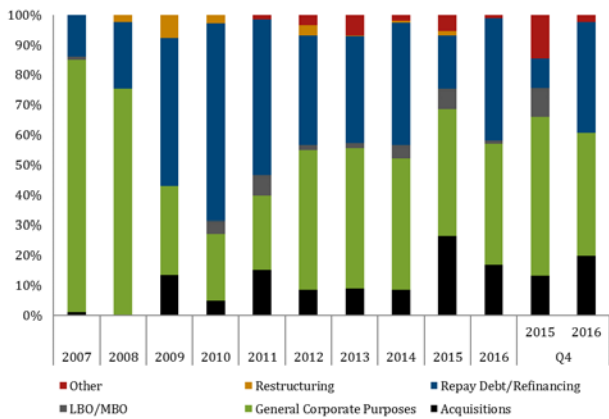
Source: Bloomberg, AFME, SIFMA

3.8 European Corporate Bond Issuance by Tenor: 4Q 2016



Source: Bloomberg, AFME, SIFMA

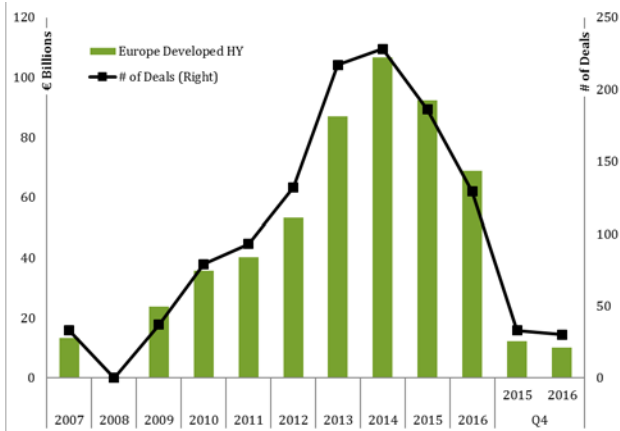
3.9 European HY Use of Proceeds



Source: Bloomberg, AFME, SIFMA

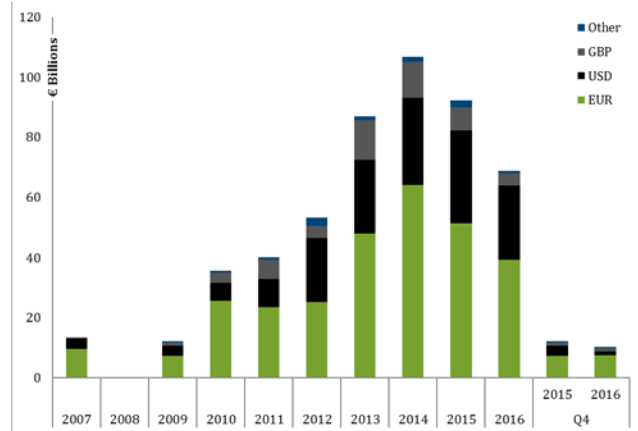
# 4 Issuance – European Developed Market High Yield Bonds

## 4.1 European Developed Market HY Bond Issuance



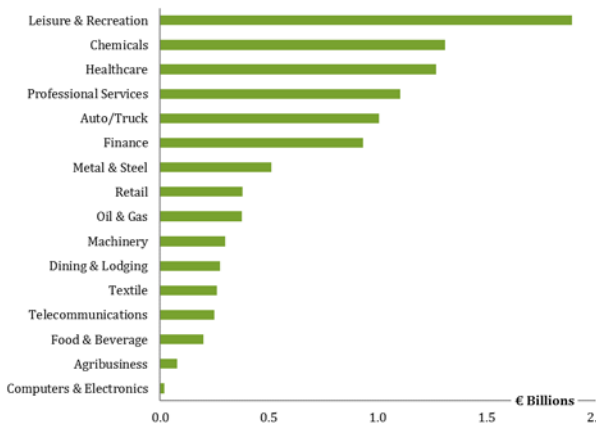
Source: Dealogic

## 4.2 European Developed Market HY Issuance by Currency



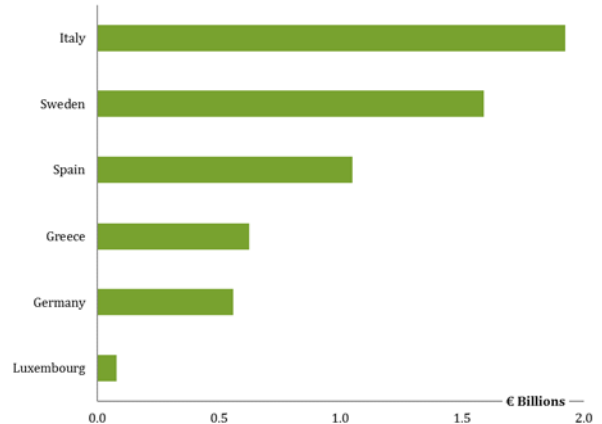
Source: Dealogic

## 4.3 European Developed Market HY Issuance by Industry: 4Q 2016



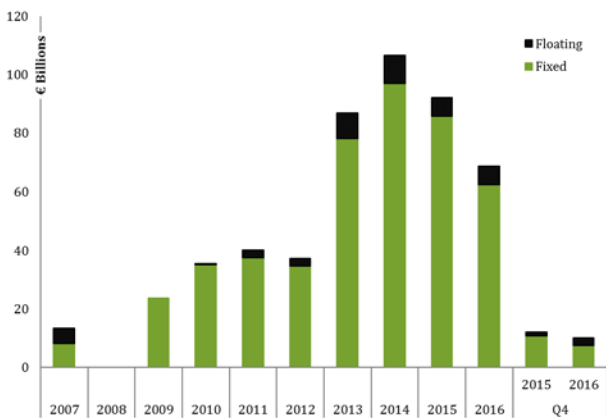
Source: Dealogic

## 4.4 European Developed Market HY Issuance by Country of Risk: 4Q 2016



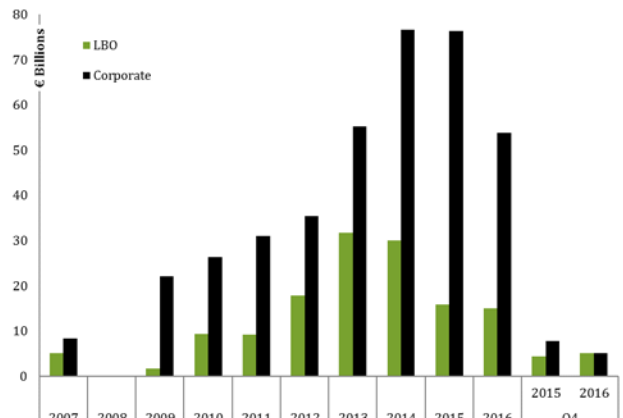
Source: Dealogic

## 4.5 European Developed Market HY Issuance, Fixed vs. Floating



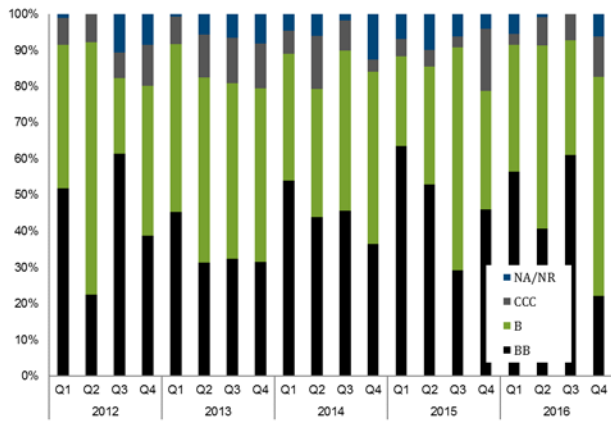
Source: Dealogic

## 4.6 European Developed Market HY Issuance, Sponsored vs. Corporate



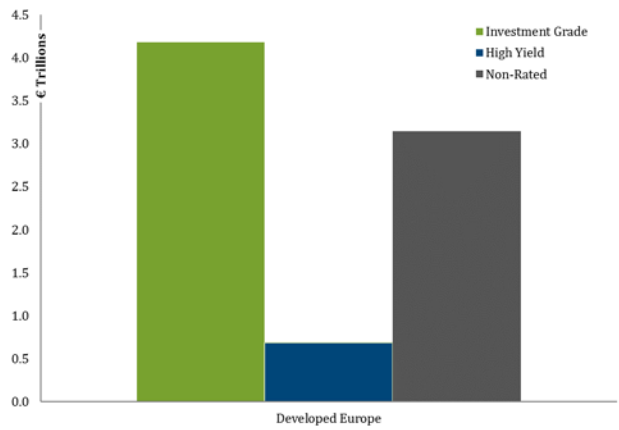
Source: Dealogic

4.7 European Developed Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

4.8 European Developed Market Corporate Bonds Outstanding: December 2016



Source: Dealogic, AFME, SIFMA

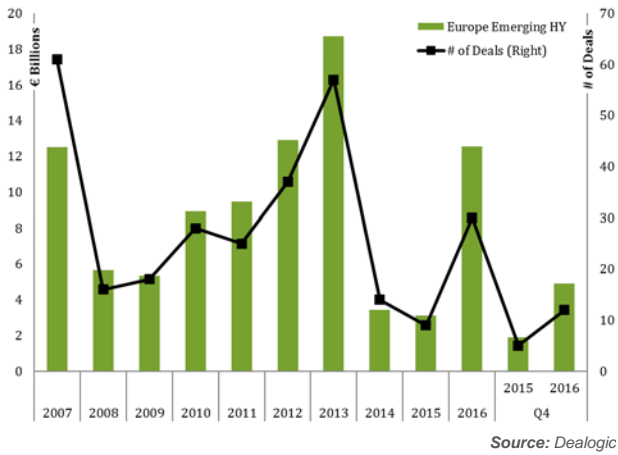
4.9 European Developed Market HY Bond Issuance

Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch	
Cognita Financing plc	Professional Services	04/10/2016	GBP	45	7.75	B2	B	NA	
Alliance Automotive Finance plc	Auto/Truck	05/10/2016	EUR	180	6.25	B2	B+	NA	
L'Isolante Srl	Chemicals	07/10/2016	EUR	103	4.25	NA	NA	BB-	
			EUR	77	4.25	NA	NA	BB-	
Hellenic Petroleum Finance plc	Oil & Gas	07/10/2016	EUR	375	4.88	NA	NA	NA	
N&W Global Vending SpA	Machinery	07/10/2016	EUR	300	7.00	B2	(P)B	NA	
Tereos Finance Groupe I SA	Food & Beverage	12/10/2016	EUR	200	4.13	NA	BB	BB	
Net Gaming Europe AB	Computers & Electronics	13/10/2016	SEK	200	13.00	NA	NA	NA	
CNH Industrial Capital LLC	Finance	18/10/2016	USD	400	3.88	Ba1	BB	NA	
TUI AG	Professional Services	19/10/2016	EUR	300	2.13	Ba2	BB-	NA	
Banco de Credito Social Cooperativo - BCC	Finance	25/10/2016	EUR	100	9.00	NA	NA	B+	
HomeVi SAS	Healthcare	26/10/2016	EUR	200	3M EURIBOR +425	B2	NA	NA	
			EUR	128		6.88	B2e	B	NA
SNAI SpA	Leisure & Recreation	27/10/2016	EUR	250	3M EURIBOR +600	B2	B	NA	
			EUR	320		6.38	B2	B	NA
Mobilux Finance SAS	Retail	27/10/2016	EUR	380		5.50	B3	B	B+
Crystal Almond SARL	Telecommunications	28/10/2016	EUR	250		10.00	NA	B	B
Bracken MidCo1 plc	Finance	28/10/2016	GBP	220		10.50	NA	B	B-
Enterprise Inns plc	Dining & Lodging	31/10/2016	GBP	250		6.38	NA	BB-	NA
Codere Finance (Luxembourg) SA	Leisure & Recreation	01/11/2016	USD	300		7.63	B2	B	NA
			EUR	500		6.75	B2	B	NA
Ladbrokes Group Finance plc	Leisure & Recreation	02/11/2016	GBP	400		5.13	NA	BB	BB
Autodis SA	Auto/Truck	03/11/2016	EUR	260	3M EURIBOR +437.5	B2	B	NA	
			EUR	260		4.38	B2	B	NA
Guala Closures SpA	Metal & Steel	03/11/2016	EUR	510	3M EURIBOR +475	B2	B	NA	
Synlab Bondco plc	Healthcare	04/11/2016	EUR	940	3M EURIBOR +350	B2	B+	B+	
Banco Mare Nostrum SA	Finance	09/11/2016	EUR	175		9.00	NA	BB-	
Perstorp Holding AB	Chemicals	15/11/2016	USD	420		11.00	Caa2	CCC+	NA
			EUR	200	3M EURIBOR +762.5	B3	CCC+	NA	
			EUR	285		7.63	B3	CCC+	NA
			USD	275		8.50	B3	CCC+	NA
International Personal Finance plc	Finance	22/11/2016	RON	80		8.00	NA	NA	NA
Betsson AB	Leisure & Recreation	28/11/2016	SEK	1,000	3M STIBOR +350	NA	NA	NA	
Thomas Cook Finance plc	Professional Services	02/12/2016	EUR	750		6.25	B1	B	B+
Volvo Car AB	Auto/Truck	02/12/2016	SEK	500		2.50	Ba2	BB	NA
			SEK	2,500	3M STIBOR +235	Ba2	BB	NA	
Societe Financiere des Caoutchoucs SA-SOCFIN	Agribusiness	08/12/2016	EUR	80		4.00	NA	NA	NA
PrestigeBidCo GmbH	Textile	08/12/2016	EUR	260		6.25	B2	(P)B	NA
Hoist Kredit AB	Finance	14/12/2016	EUR	30		8.63	NA	NA	NA

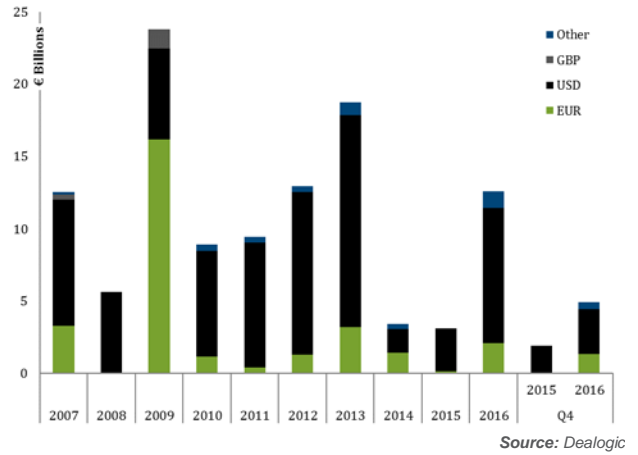
Source: Bloomberg, Dealogic

# 5 Issuance – European Emerging Market High Yield Bonds

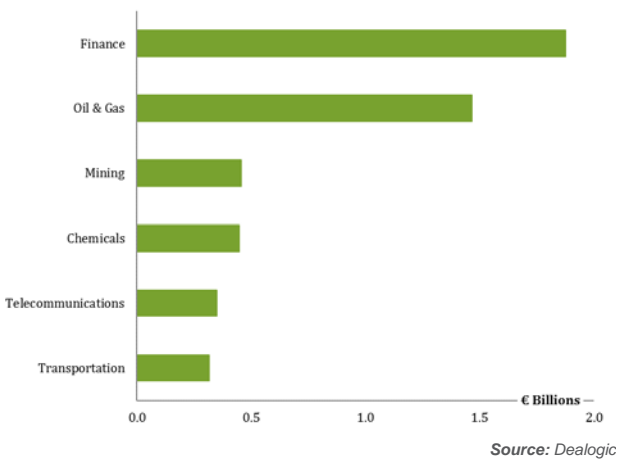
5.1 European Emerging Market HY Bond Issuance



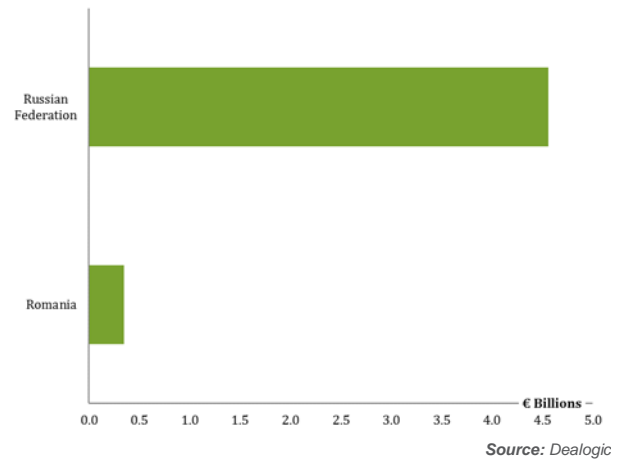
5.2 European Emerging Market HY Bond Issuance by Currency



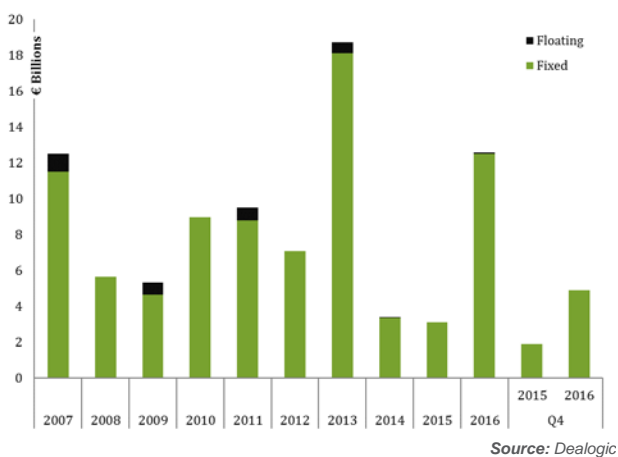
5.3 European Emerging Market HY Issuance by Industry: 4Q 2016



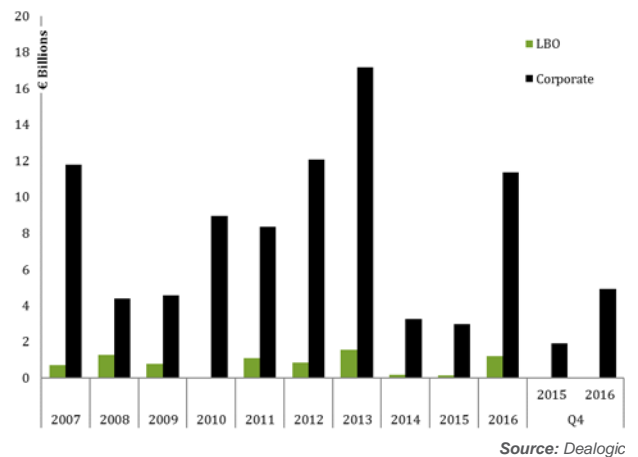
5.4 European Emerging Market HY Issuance by Country of Risk: 4Q 2016



5.5 European Emerging Market HY Issuance, Fixed vs. Floating

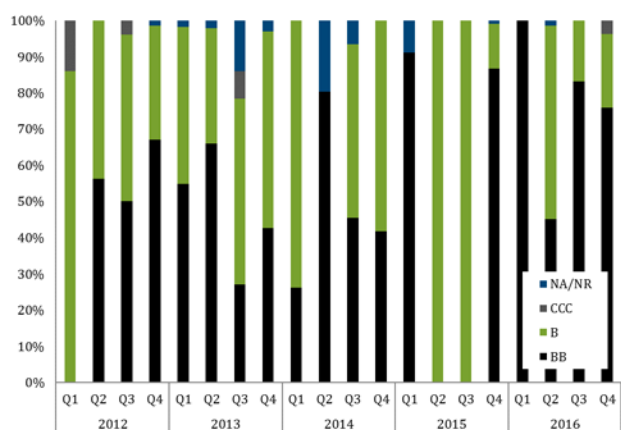


5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate



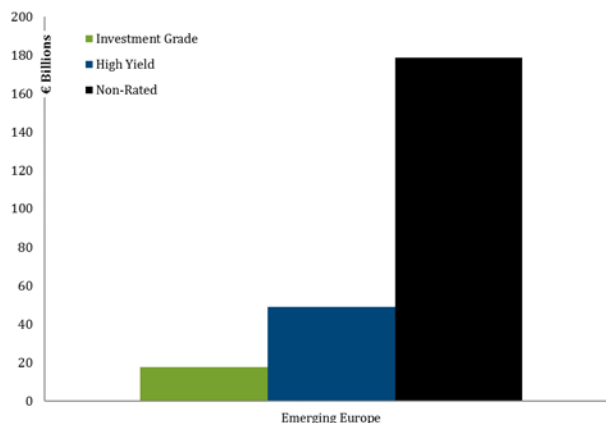


### 5.7 European Emerging Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

### 5.8 European Emerging Market Corporate Bonds Outstanding: December 2016



Source: Bloomberg, AFME, SIFMA

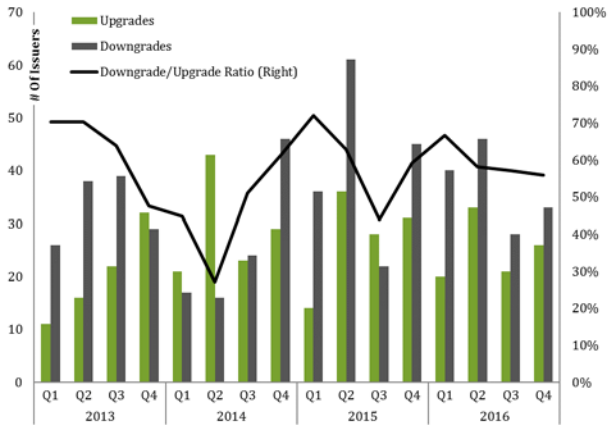
### 5.9 European Emerging Market HY Bond Issuance

Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch
Otkritie Financial Corporation Bank OAO	Finance	04/10/2016	USD	400	4.500	Ba3	BB-	NA
EuroChem Mineral & Chemical OAO	Chemicals	05/10/2016	USD	500	3.800	NA	BB-	BB
Cable Communications Systems NV	Telecommunications	12/10/2016	EUR	350	5.000	B1	B+	NA
Promsvyazbank OAO	Finance	13/10/2016	USD	250	5.250	Ba3	BB-	NA
Polyus Gold International Ltd	Mining	20/10/2016	USD	500	4.699	Ba1	BB-	BB-
Alfa Bond Issuance plc	Finance	27/10/2016	USD	400	8.000	NA	NA	B
Credit Bank of Moscow OAO - MKB	Finance	28/10/2016	USD	500	5.875	NA	BB-	BB
Tatfondbank OAO	Finance	02/11/2016	USD	200	8.500	Caa1	D	NA
Hacienda Investments Ltd	Transportation	04/11/2016	USD	350	5.875	NA	BB+	BB+
Gazprom OAO	Oil & Gas	23/11/2016	CHF	500	2.750	Ba1	BB+	BBB-
			EUR	1,000	3.125	Ba1	BB+	BBB-
Alfa Bank OAO	Finance	20/12/2016	USD	300	8.000	NA	NA	B

Source: Bloomberg, Dealogic

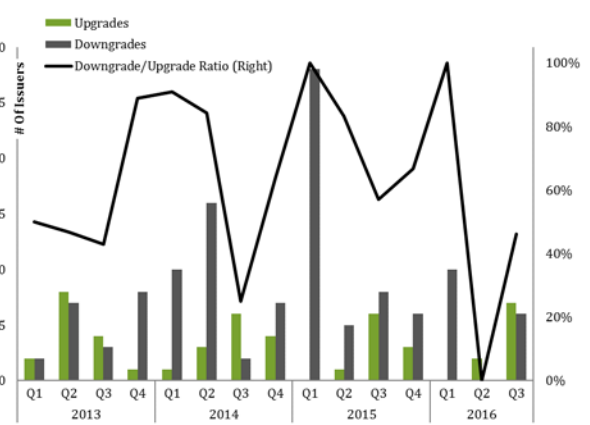
# 6 Credit Quality

## 6.1 Developed Europe Issuer Rating Actions<sup>5</sup>



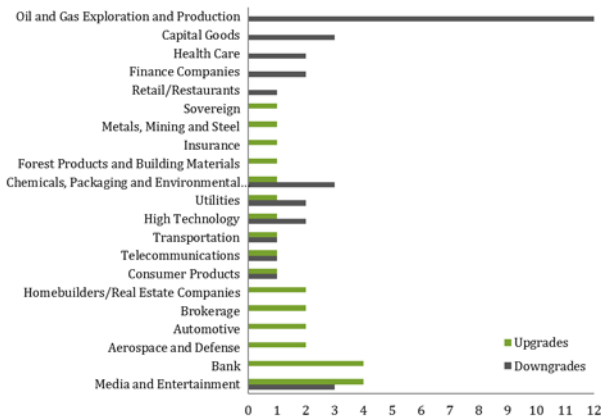
Source: Standard and Poor's

## 6.2 Emerging Europe Issuer Rating Actions<sup>6</sup>



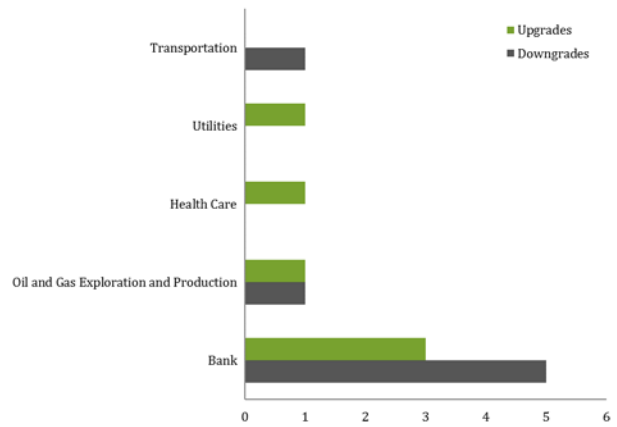
Source: Standard & Poor's

## 6.3 Developed European Industry Rating Actions by Number of Ratings: 4Q 2016



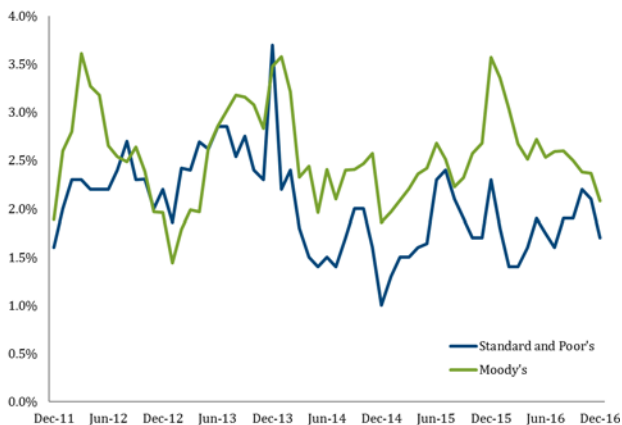
Source: Standard & Poor's

## 6.4 Emerging European Industry Rating Actions by Number of Ratings: 4Q 2016



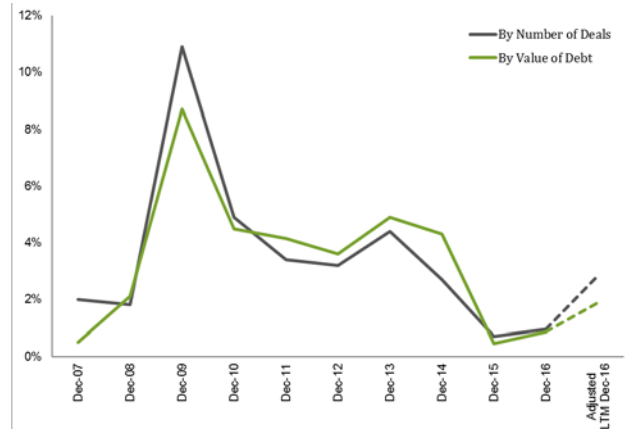
Source: Standard & Poor's

## 6.5 European High Yield Default Rate



Source: Standard & Poor's and Moody's

## 6.6 European Leveraged Loan Default Rate<sup>7</sup>



Source: Fitch Leveraged Credit Database

<sup>5</sup> Numbers include both corporate and sovereigns.

<sup>6</sup> Numbers include both corporate and sovereigns.

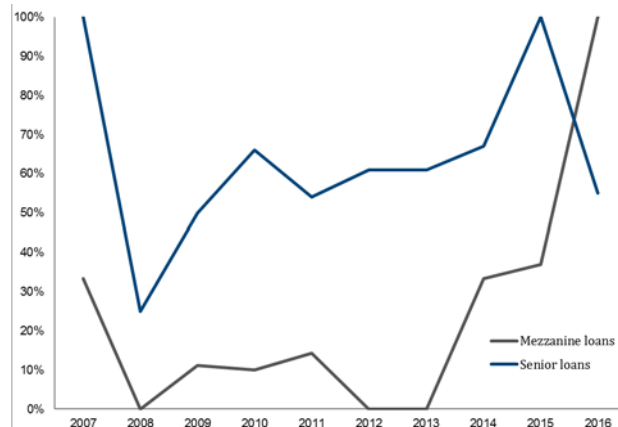
<sup>7</sup> Includes c\* and cc\* rated issuers as if those had already defaulted

6.7 Mezzanine Loans Default Rate



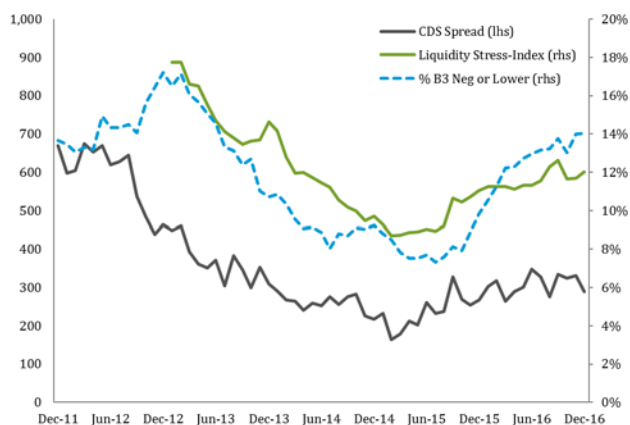
Source: Fitch Leveraged Credit Database

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

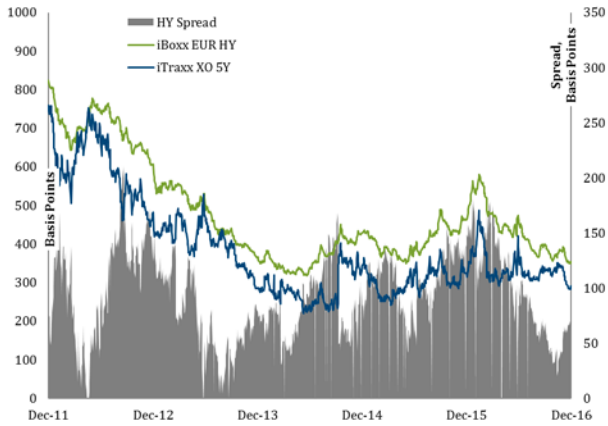
6.10 European Defaults

Issuer	Industry Group	Country	Date	Reported By	Reason
Novasep Holding SAS	Services	France	October 2016	Moody's	Distressed exchange
EnQuest plc	Energy	UK	October 2016	Moody's, S&P	Missed interest payment
JSCB Peresvet Bank	Bank	Russia	October 2016	S&P	Regulatory intervention
Expro Holdings U.K. 3 Ltd.	Oil and gas	U.K.	October 2016	S&P	Distressed exchange
Perstorp Holding AB	Chemicals	Sweden	November 2016	Moody's	Distressed exchange
PJSC Tatfondbank	Bank	Russia	December 2016	S&P	Regulatory intervention
PrivatBank	Bank	Ukraine	December 2016	S&P	Regulatory intervention
Petroleum Geo-Services ASA	Energy	Norway	December 2016	Moody's, S&P	Distressed exchange
SoLocal Group S.A.	Media publishing	France	December 2016	Moody's	Missed interest payment
Grupo Isolux Corsan S.A.	Capital Goods	Spain	December 2016	S&P	Distressed exchange
KazInvestBank	Bank	Kazakhstan	December 2016	S&P	Regulatory intervention

Source: Standard & Poor's, Moody's

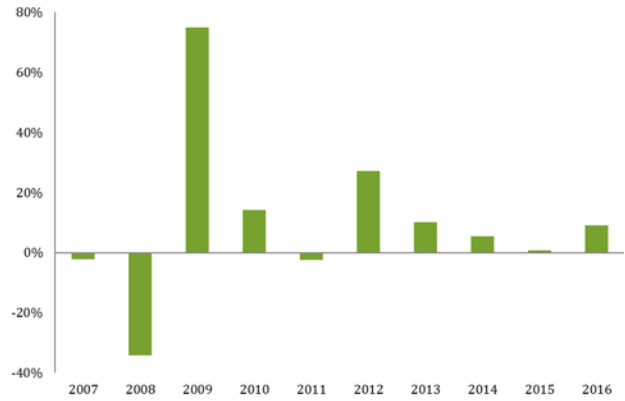
# 7 Relative Value and Total Return

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



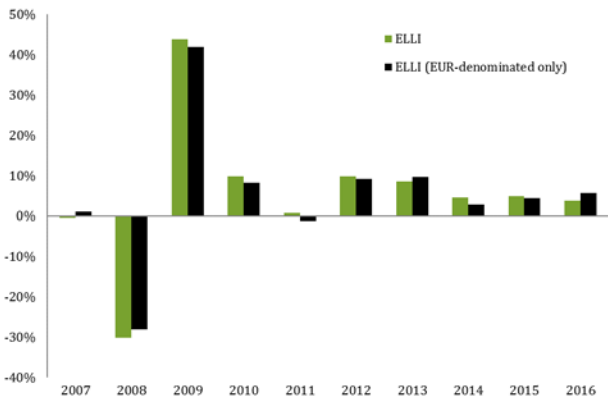
Source: Thomson Reuters Eikon, Markit

## 7.2 European HY Bond Total Return



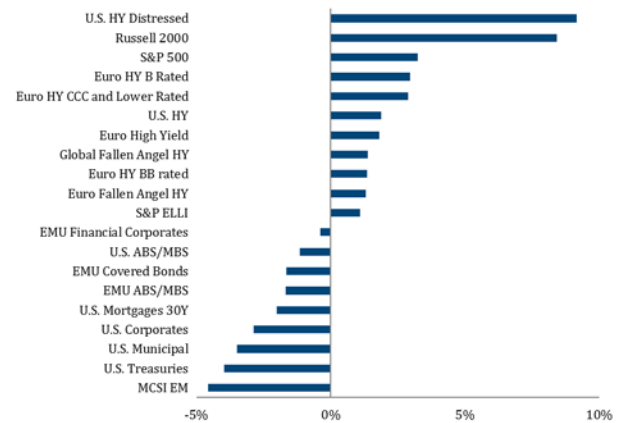
Source: BAML

## 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

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 2<sup>nd</sup> 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 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 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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