

# European High Yield & Leveraged Loan Report

## European Leveraged Finance

Q4: 2019



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## Highlights and Market Environment

### Highlights

#### Issuance Highlights

European leveraged finance issuance (leveraged loans and high yield bonds) increased to €80.3 billion in 4Q'19, a 4.9% increase from €76.5 billion in 3Q'19 and an over twofold increase from €35.2 billion in 4Q'18. This quarterly increase was driven mainly by an increase in high yield bonds issuance. The high yield bond share of leveraged finance market issuance increased to 42.3% in 4Q'19, up from 40.9% in 3Q'19 and up from 19.7% in 4Q'18.

#### Market and Economic Environment

According to the January 2020 European Central Bank lending survey, credit standards for loans to enterprises and loans to households for house purchase remained broadly unchanged in 4Q'19 while credit standards for consumer credit continued to tighten. Banks' risk perceptions continued to have a tightening impact on credit standards for loans to enterprises. In contrast, competition (mainly from other banks) continued to have an easing impact. Across firm size, credit standards tightened slightly for loans to small and medium-sized enterprises (SMEs) and remained broadly unchanged for loans to large firms in 4Q'19. Net demand for loans to enterprises declined for the first time since 4Q'13, reflecting the slowdown in economic activity that has been observed since 2018. Net demand declined for both loans to SMEs and loans to large firms.

Credit standards for consumer credit loans continued to tighten in 4Q'19, mainly due to banks' risk tolerance and weakening in the easing pressure coming from the impact of competition. Net demand for consumer credit loans increased in 4Q'19.

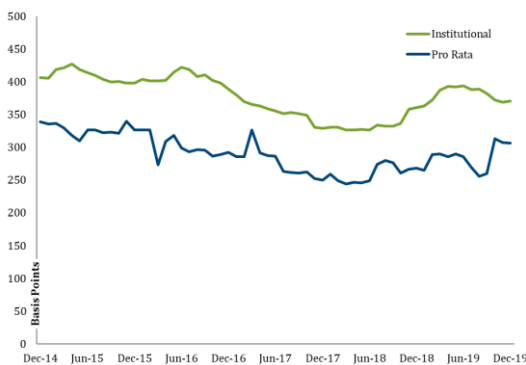
Credit standards for housing loans remained unchanged in 4Q'19. Competitive pressure and lower risk perceptions were the main drivers having an easing impact while banks' risk tolerance, funding costs and balance sheet constraints had a broadly neutral impact. Banks reported a further strengthening of net demand for housing loans in 4Q'19, which remained above the historical average.

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*“European leveraged finance issuance (leveraged loans and high yield bonds) totaled €80.3 billion in 4Q'19”*

*“Leveraged loan issuance totaled €46.4 billion on 67 deals in 4Q’19”*

### Leveraged Loan Spreads



Source: Dealogic, AFME, SIFMA

## Issuance

### Issuance: Leveraged Loans

Leveraged loan issuance, including first lien, second lien, and mezzanine financing, totaled €46.4 billion on 67 deals in the fourth quarter of 2019, up 2.5% in volume from €45.2 billion on 69 deals in 3Q’19 and a 64.1% increase from €28.2 billion on 66 deals in 4Q’18.

All but four of the leveraged loans issued in 4Q’19 were 1<sup>st</sup> lien loans (€45.6 billion or 98.4% of total). The remaining four were 2<sup>nd</sup> lien loans (€0.8 billion) and no mezzanine loans were financed in 4Q’19.

Pricing spreads for institutional loans tightened by 12 basis points (bps) q-o-q but widened by 10 bps y-o-y. Spreads for pro rata loans widened by 47 bps q-o-q and by 38 bps y-o-y.

In 4Q’19, €6.7 billion of amend-and-extend (“A&E”) loans were financed, up over fourfold from €1.3 billion in 3Q’19 but down by 12.2% from €7.6 billion in 4Q’18. There were €3.6 billion in loans amended to reduce pricing (“A&R”) in the fourth quarter of 2019, up 16.7% from €3.1 billion in 4Q’18 and from €0.6 billion in 4Q’17.

The top three sectors accounted for almost half of leveraged loan issuance in 4Q’19; the leading sector was healthcare (€9.4 billion or 20.3% of total), followed by telecommunications (€6.4 billion, 13.8%), and publishing (€4.6 billion, 9.9%), with the balance split between 18 other sectors.

Over two-thirds (67.9%) of deals financed in the fourth quarter of 2019 were issued for refinancing and/or repayment of debt, up from 47.9% in 3Q’19 and up from 66.7% in 4Q’18. Refinancing and/or repayment of debt were the largest use of proceeds in 4Q’19 with €31.5 billion, followed by leveraged buyouts with €9.9 billion (or 21.3% of total), and acquisitions with €2.2 billion or 4.8% of the total.

*“Primary high yield issuance totaled €33.9 billion on 67 deals in 4Q’19”*

### Issuance: High Yield Bonds

Primary high yield issuance totaled €33.9 billion on 67 deals in 4Q’19, a 8.4% increase in volume from €31.3 billion on 58 deals in 3Q’19 and an almost fourfold increase from €6.9 billion on 22 deals in 4Q’18. In developed market Europe, €28.3 billion of high yield bonds were issued in 4Q’19, up 1.2% from €27.9 billion in 3Q’19 and up over threefold from €6.9 billion in 4Q’18. In emerging market Europe €5.7 billion in high yield bonds were issued in 4Q’19, up 69.1% from €3.4 billion in 3Q’19 and up from no issuance in 4Q’18.

In the fourth quarter of 2019, average deal size in developed market Europe decreased by 4.7% to €543.6 million from €570.1 million in 3Q’19 but was up by 72.7% from €314.7 million in 4Q’18. Average deal size in emerging market Europe was €377.7 million in 4Q’19, up 1.4% from €372.3 million in 3Q’19.

The leading use of proceeds for high yield bonds issuance in 4Q’19 were general corporate purposes with €17.7 billion, which was up 44.8% from €12.2 billion in 3Q’19 and up over fivefold from €2.7 billion in 4Q’18. In developed market Europe, the leading use of proceeds for high yield issuance in 4Q’19 was general corporate purposes with €13.6 billion, followed by refinancing and/or repayment of debt with €9.6 billion and acquisitions with €2.7 billion. In emerging market Europe, €4.1 billion was issued for general corporate purposes in 4Q’19 followed by €1.1 billion for other uses and €0.5 billion for refinancing and/or repayment of debt.

Three sectors accounted for roughly a third (35.7%) of the total high yield issuance volume in 4Q’19 in developed market Europe: the telecommunications sector continued to lead issuance with €3.9 billion (13.9% of total), followed by finance with €3.2 billion (11.5% of total), and healthcare with €2.9 billion (10.3% of total). In emerging market Europe the top three sectors were: finance (€1.8 billion or 30.9% of total), followed by transportation (€0.81 billion, 14.4%) and metal & steel (€0.76 billion, 13.4%).

The proportion of USD-denominated issuance decreased to 26.0% of all issuance in 4Q’19, down from 31.1% in 3Q’19 but up from only 8.8% in 4Q’18. USD-denominated issuance in developed market Europe decreased to €4.4 billion, or 15.5% of issuance, down 38.8% from €7.2 billion (25.7% of total) in 3Q’19 but up over sixfold from €0.6 billion (8.8% of total) in 4Q’18. Of high yield bonds issued in emerging market Europe, €4.4 billion (78.5% of total) was denominated in USD, up 74.2% from €2.6 billion (76.1% of total) in 3Q’19.



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*“U.S. S&P 500 Index led returns in 4Q’19 with an increase of 28.9% y-o-y”*

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*“Six European high yield bond issuers defaulted in 4Q’19”*

#### Returns & Credit Quality

Of the 20 analysed asset classes, only one recorded negative year-over-year (y-o-y) returns in 4Q’19. U.S. S&P 500 Index led y-o-y returns with an increase of 28.9% in 4Q’19, followed by U.S. Russel 2000 Index with a 23.7% gain y-o-y and Euro HY CCC and Lower Rated Index with a 20.0% gain y-o-y. The worst performing asset class continued to be the U.S. HY Distressed Index with a loss of 2.8% y-o-y in 4Q’19, followed by EMU Covered Bonds Index with a 2.8% gain y-o-y, and S&P ELLI Index with a 4.9% increase y-o-y.

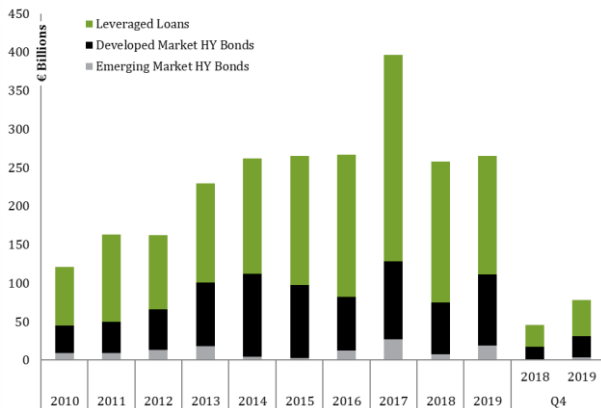
As of December 2019, S&P reported the trailing 12-month speculative-grade default rate at 2.2%, an increase from 2.1% in September 2019 and from 2.0% in December 2018. Moody’s reported the trailing 12-month speculative-grade default rate at 1.5% in December 2019, up slightly from 1.4% in September 2019 but down from 2.0% in December 2018.

Six bond-related defaults were reported in the fourth quarter of 2019 by Standard and Poor’s and Moody’s, all in developed market Europe. The most common reason for default in 4Q’19 was distressed exchange.

According to Standard and Poor’s, downgrades exceeded upgrades in developed market Europe (36 downgrades to 19 upgrades), a slightly better ratio than 36 downgrades to 14 upgrades in 3Q’19 but worse than 39 downgrades to 27 upgrades in 4Q’18. Likewise, according to Moody’s, in 4Q’19 downgrades exceeded upgrades in Europe (34 downgrades and 6 upgrades), a slightly better ratio than 34 downgrades and 1 upgrade in 3Q’19 but significantly worse than 31 downgrades and 16 upgrades in 4Q’18.

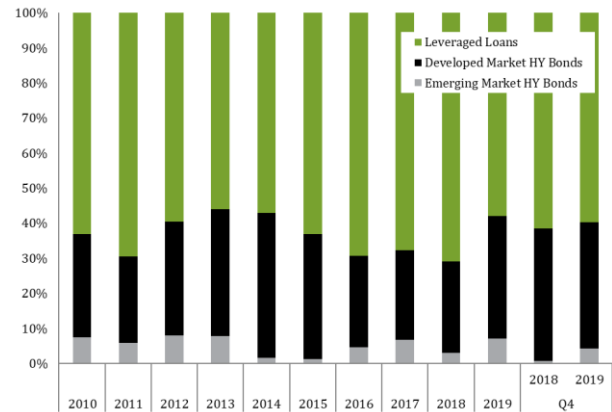
# 1 Leveraged Finance Overview

## 1.1 European Leveraged Issuance by Type



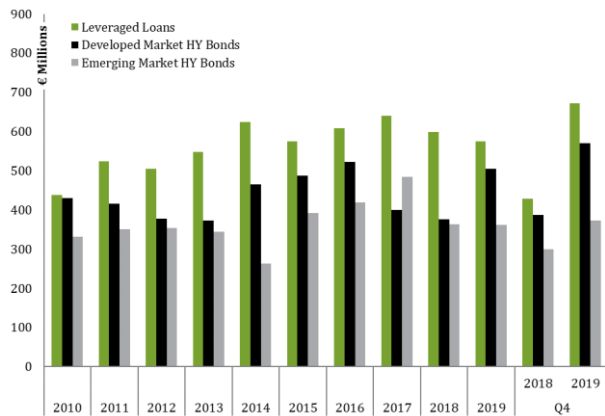
Source: Dealogic

## 1.2 European Leveraged Issuance Percentage



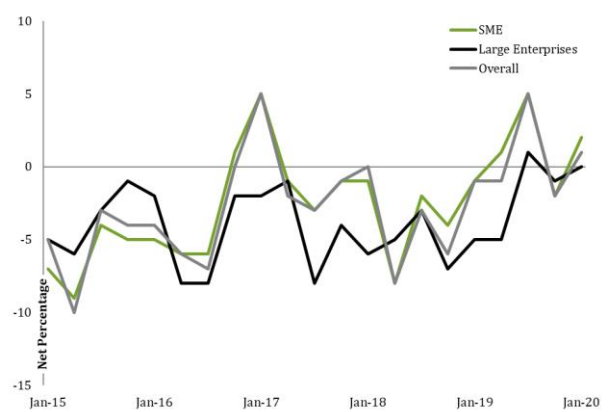
Source: Dealogic

## 1.3 European Leveraged Average Deal Size



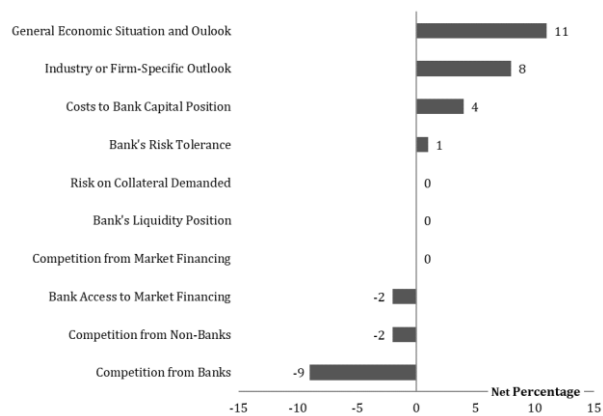
Source: Dealogic

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



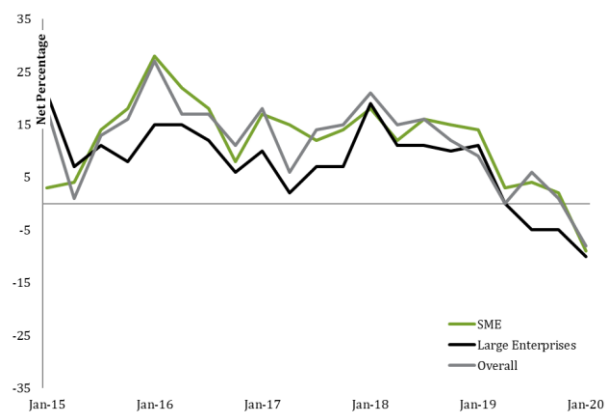
Source: European Central Bank

## 1.5 Factors Affecting Bank Credit Standards: January 2020<sup>2</sup>



Source: European Central Bank

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



Source: European Central Bank

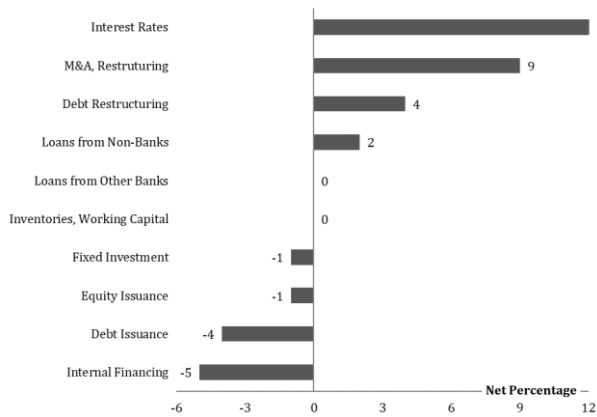
<sup>1</sup> A positive net percentage number signifies tightening bank credit; a negative net percentage number signifies easing credit.

<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 2020<sup>4</sup>



Source: European Central Bank

### 1.8 Global Comparison – High Yield Issuance

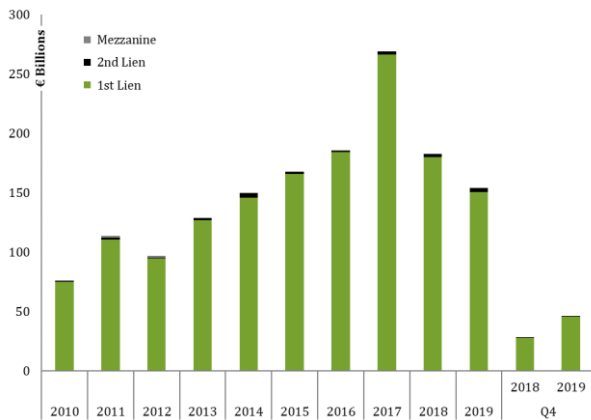
€ Billions	2019					2018					Prior Years			
	Q1	Q2	Q3	Q4	Full Year	Q1	Q2	Q3	Q4	Full Year	2017	2016	2015	2014
<b>United States</b>	48.0	49.2	46.4	57.4	201.0	38.4	32.1	34.9	10.4	115.8	220.4	192.0	187.6	164.4
<b>Europe</b>	17.1	29.2	31.3	33.9	111.6	24.9	25.4	17.7	6.9	74.9	127.9	82.1	97.8	112.4
<b>Asia Pacific</b>	29.1	26.3	20.1	16.0	91.5	18.3	12.7	8.2	11.8	51.0	76.6	27.7	25.7	27.1

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.

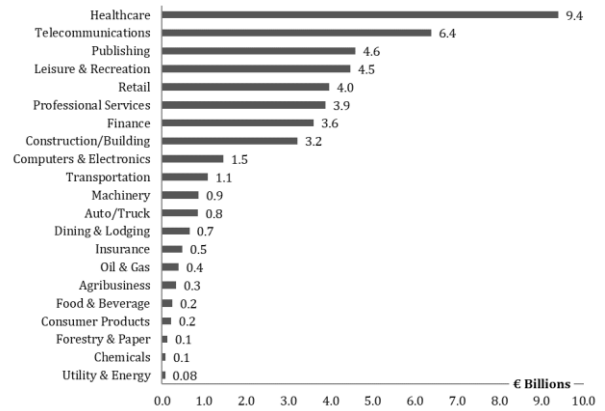
## 2 Issuance – Leveraged Loans

### 2.1 European Leveraged Loan Issuance By Type



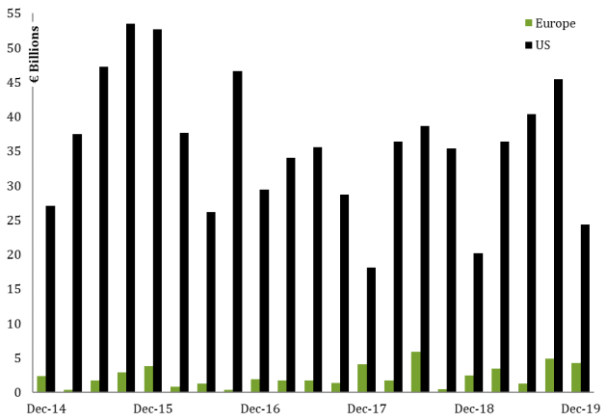
Source: Dealogic

### 2.2 European Leveraged Loan Issuance by Industry: 4Q 2019



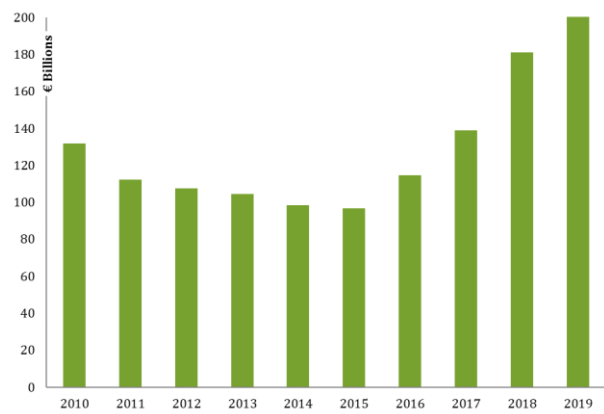
Source: Dealogic

### 2.3 Forward Pipeline of Leveraged Loan Market



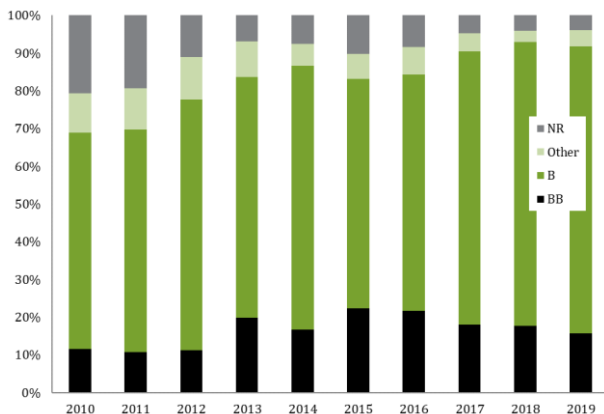
Source: Standard & Poor's LCD

### 2.4 ELLI Total Institutional Loans Outstanding



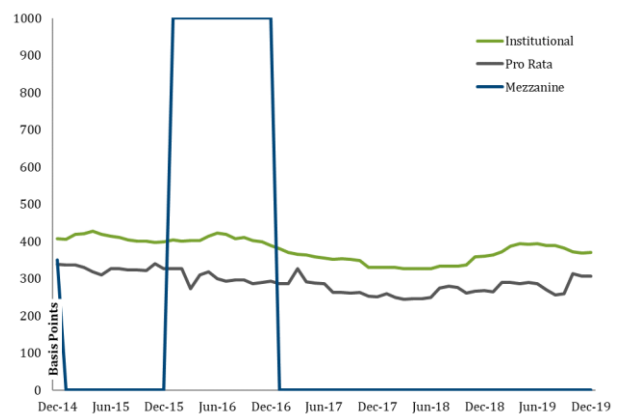
Source: Standard & Poor's LCD

### 2.5 ELLI Ratings Diversification



Source: Standard & Poor's LCD

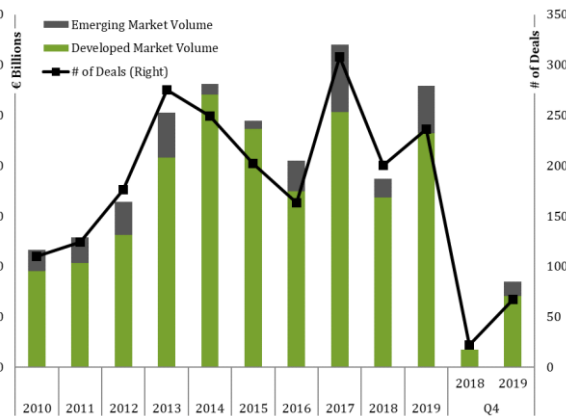
### 2.6 Institutional, Pro Rata and Mezzanine Spreads



Source: Dealogic, AFME, SIFMA

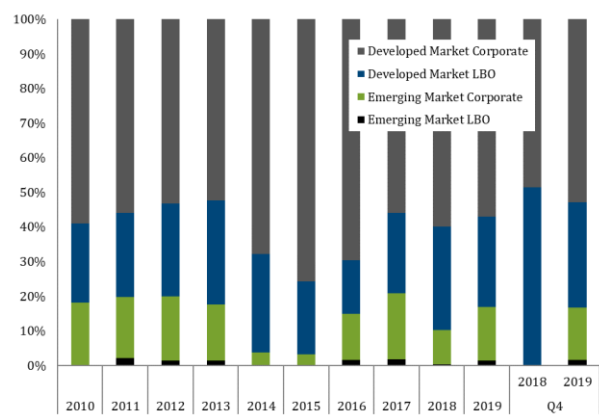
### 3 Issuance – High Yield Bonds Overview

#### 3.1 European High Yield Issuance



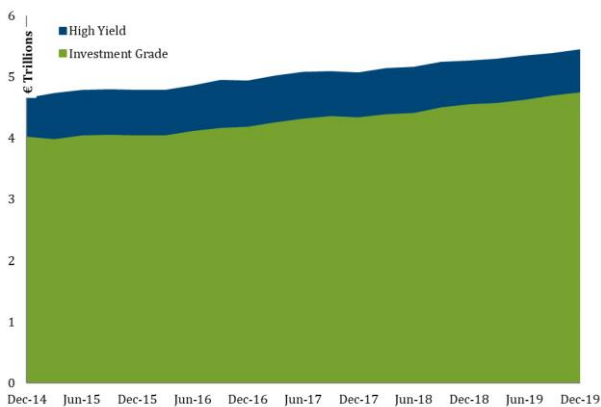
Source: Dealogic

#### 3.2 European High Yield Issuance by Sponsor



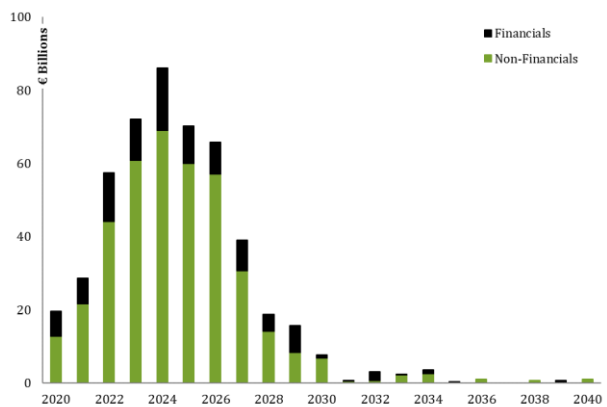
Source: Dealogic

#### 3.3 European Corporate Bonds Outstanding (IG and HY only)



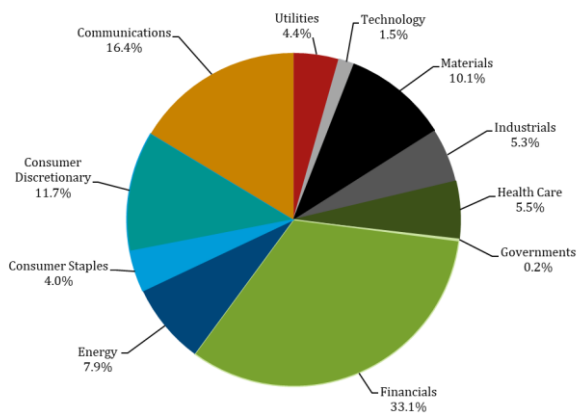
Source: Bloomberg, AFME, SIFMA

#### 3.4 European Corporate Bonds HY Maturity Wall: 4Q 2019



Source: Bloomberg, AFME, SIFMA

#### 3.5 European Corporate HY Bonds Outstanding By Sector: 4Q 2019



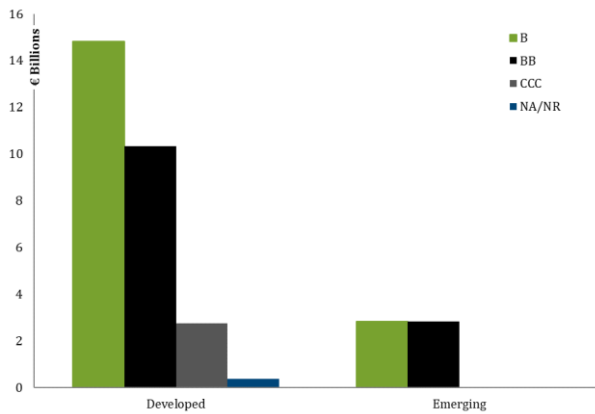
Source: Bloomberg, AFME, SIFMA

#### 3.6 European Corporate HY Bonds Outstanding by Current Rating: 4Q 2019



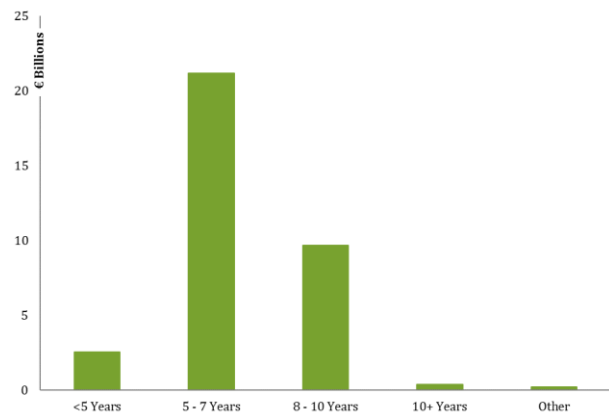
Source: Bloomberg, AFME, SIFMA

## 3.7 European Corporate Bond Issuance by Rating: 4Q 2019



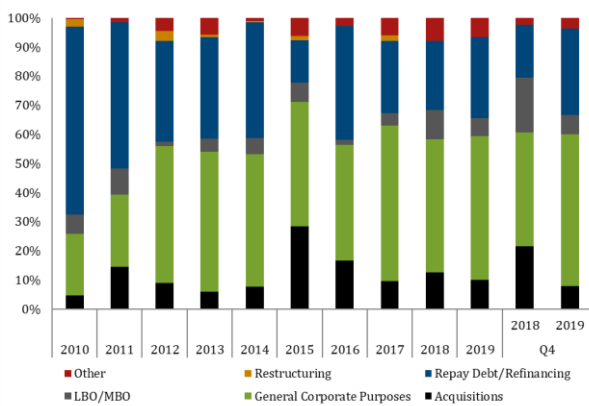
Source: Dealogic, AFME, SIFMA

## 3.8 European Corporate Bond Issuance by Tenor: 4Q 2019



Source: Dealogic, AFME, SIFMA

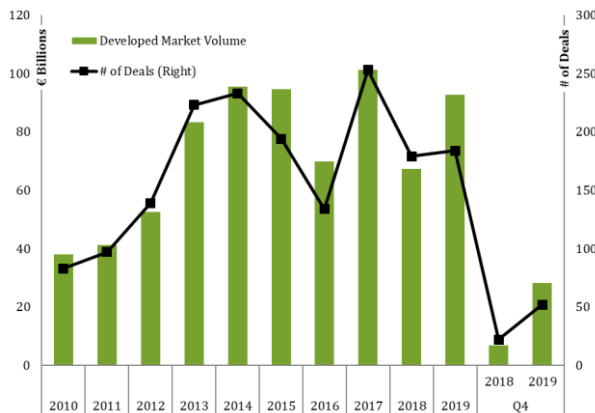
## 3.9 European HY Use of Proceeds



Source: Dealogic, AFME, SIFMA

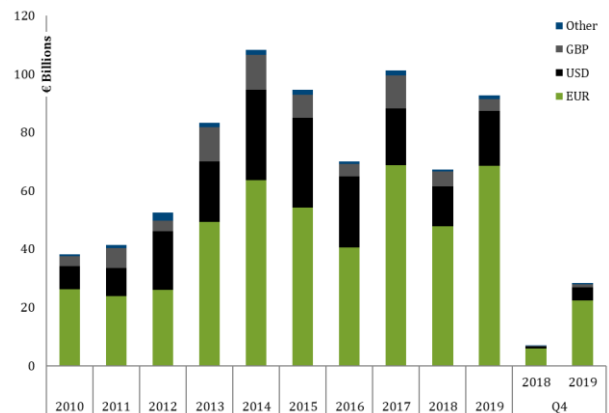
## 4 Issuance – European Developed Market High Yield Bonds

### 4.1 European Developed Market HY Bond Issuance



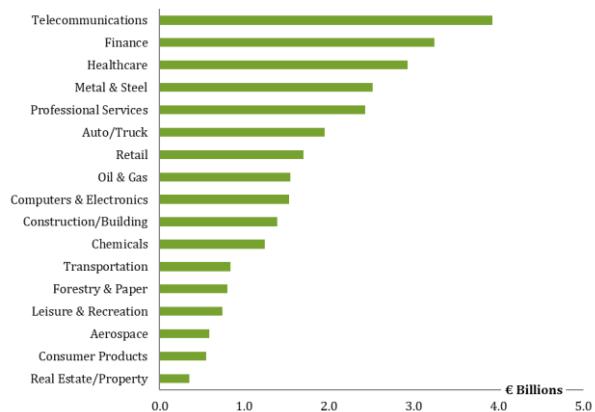
Source: Dealogic

### 4.2 European Developed Market HY Issuance by Currency



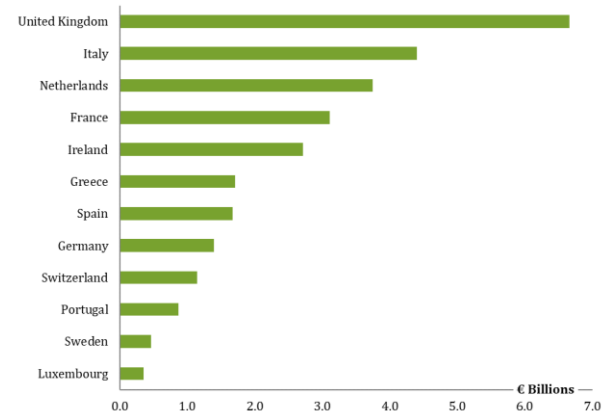
Source: Dealogic

### 4.3 European Developed Market HY Issuance by Industry: 4Q 2019



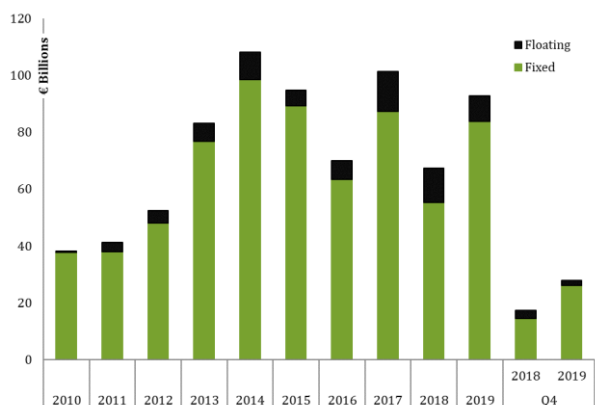
Source: Dealogic

### 4.4 European Developed Market HY Issuance by Country of Risk: 4Q 2019



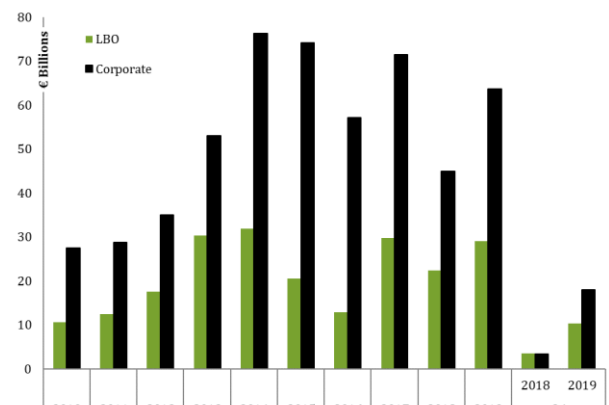
Source: Dealogic

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



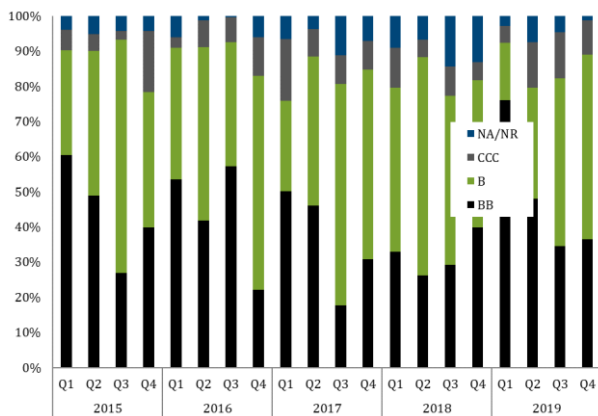
Source: Dealogic

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



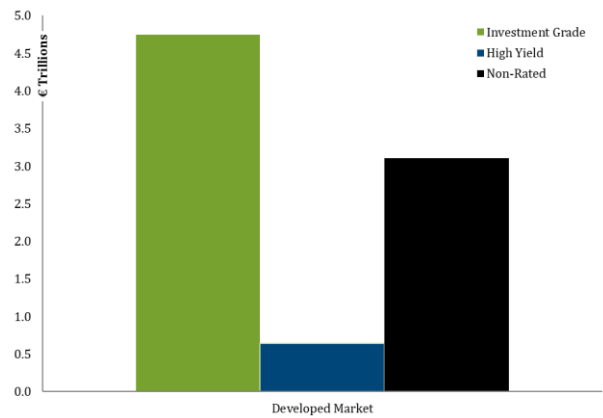
Source: Dealogic

## 4.7 European Developed Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

## 4.8 European Developed Market Corporate Bonds Outstanding: 4Q 2019



Source: Bloomberg, AFME, SIFMA

## 4.9 European Developed Market HY Bond Issuance

Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch
Virgin Media Secured Finance plc	Finance	01/10/2019	GBP	400	4.25 Ba3	BB-	BB+	
Metro Bank plc	Telecommunications	02/10/2019	GBP	350	9.50 NA	NA	BB	
Crystal Almond SARL	Finance	03/10/2019	EUR	525	4.25 NA	B	B	
Monte dei Paschi	Finance	03/10/2019	EUR	250	3.63 Caa1	NA	B	
Tikehau Capital SCA	Oil & Gas	07/10/2019	EUR	500	2.25 NA	NA	BBB-	
EG Global Finance plc	Oil & Gas	11/10/2019	EUR	700	6.25 B2	B	B+	
EG Global Finance plc*	Chemicals	11/10/2019	USD	635	8.50 B2	B	B+	
OCI NV	Chemicals	11/10/2019	EUR	700	3.13 Ba3	BB	NA	
OCI NV*	Computers & Electronics	11/10/2019	USD	600	5.25 Ba3	BB	NA	
Nexi SpA	Finance	11/10/2019	EUR	825	1.75 Ba3	BB-	BB	
UBI Banca	Telecommunications	14/10/2019	EUR	500	1.63 Ba3	BB+	BBB-	
Eircom Finance dac	Retail	15/10/2019	EUR	350	1.75 B1	B+	BB-	
Selecta Group BV	Retail	16/10/2019	EUR	100	5.79 B3	B	NA	
Selecta Group BV*	Leisure & Recreation	16/10/2019	EUR	50	3M EURIBOR +537.5 B3	B	NA	
Motion Bondco dac	Leisure & Recreation	16/10/2019	USD	410	6.63 B3	B-	NA	
Motion Bondco dac*	Finance	16/10/2019	EUR	370	4.50 B3	B-	NA	
Banca Farmafactoring SpA	Telecommunications	16/10/2019	EUR	300	1.75 Ba1	NA	NA	
Ziggo BV	Telecommunications	17/10/2019	USD	500	4.88 B1	B+	BB	
Ziggo BV*	Healthcare	17/10/2019	EUR	425	2.88 B1	B+	BB	
Rossini SARL	Real Estate/Property	17/10/2019	EUR	650	3M EURIBOR +387.5 B3	B	NA	
Consus Real Estate AG	Construction/Building	17/10/2019	EUR	50	9.63 NA	B-	B	
Hornbach Baumarkt AG	Telecommunications	17/10/2019	EUR	250	3.25 Ba2	BB	NA	
VodafoneZiggo Group Holding BV	Telecommunications	18/10/2019	USD	500	4.88 B1	B+	BB	
VodafoneZiggo Group Holding BV*	Forestry & Paper	18/10/2019	EUR	425	2.88 B1	B+	BB	
Schoeller Allibert Group BV	Oil & Gas	18/10/2019	EUR	250	6.38 B2	B	B	
Neptune Energy Bondco plc	Consumer Products	18/10/2019	USD	300	6.63 B1	BB-	BB	
Evoca SpA	Finance	18/10/2019	EUR	550	3M EURIBOR +425 B2	B	NA	
Banco BPM SpA	Professional Services	21/10/2019	EUR	500	1.75 Ba2	NA	NA	
Summer (BC) Holdco B SARL	Professional Services	23/10/2019	EUR	1,000	5.75 B1	B	NA	
Summer (BC) Holdco B SARL*	Telecommunications	23/10/2019	EUR	475	9.25 Caa1	CCC+	NA	
VZ Vendor Financing BV	Telecommunications	24/10/2019	EUR	500	2.50 B2	B-	B-	
Eircom Finance dac	Real Estate/Property	24/10/2019	EUR	350	2.63 B1	B+	BB-	
Vivion Investments SARL	Auto/Truck	25/10/2019	EUR	300	3.50 NA	BB+	NA	
Faurecia SE	Aerospace	28/10/2019	EUR	250	3.13 Ba1	BB+	BB+	
BBA US Holdings Inc	Retail	29/10/2019	USD	650	4.00 Ba2	BB	NA	
Dufry One BV	Metal & Steel	06/11/2019	EUR	750	2.00 Ba2	BB	NA	
ARD Finance SA	Metal & Steel	06/11/2019	USD	1,130	6.50 Caa2	B-	NA	
ARD Finance SA*	Retail	06/11/2019	EUR	1,000	5.00 Caa2	B-	NA	
Quatrim SAS	Construction/Building	07/11/2019	EUR	800	5.88 B1	B+	NA	
Peach Property Finance GmbH	Healthcare	08/11/2019	EUR	250	3.50 Ba3	BB-	BB-	
Grifols SA	Healthcare	08/11/2019	EUR	905	1.63 Ba2	BB+	NA	
Grifols SA*	Transportation	08/11/2019	EUR	770	2.25 Ba2	BB+	NA	
Heathrow Finance plc	Auto/Truck	12/11/2019	GBP	300	4.13 Ba3	NA	BB+	
Faurecia SE	Transportation	13/11/2019	EUR	700	2.38 Ba1	BB+	BB+	
Global Ship Lease Inc	Transportation	14/11/2019	USD	28	8.00 NA	NA	NA	
GasLog Ltd	Healthcare	14/11/2019	NOK	900	3M NIBOR +625 NA	NA	NA	
Nidda Healthcare Holding GmbH	Construction/Building	15/11/2019	EUR	600	3.50 B2	B	B+	
Polygon AB	Finance	18/11/2019	EUR	40	4.00 B1	NA	BB-	
Caixa Geral de Depositos SA - CGD	Finance	18/11/2019	EUR	500	1.25 Ba2	NA	BB	
Creval	Auto/Truck	19/11/2019	EUR	300	2.00 B2	NA	NA	
Jaguar Land Rover Automotive plc	Auto/Truck	21/11/2019	EUR	500	5.88 B1	B+	BB-	
Jaguar Land Rover Automotive plc*	Transportation	21/11/2019	EUR	300	6.88 B1	B+	BB-	
TAP-Transportes Aereos Portugueses SGPS SA	Metal & Steel	22/11/2019	EUR	375	5.63 B2	BB-	NA	
Mytilineos Financial Partners SA	Forestry & Paper	22/11/2019	EUR	500	2.50 NA	BB-	BB	
WEPA Hygieneprodukte GmbH	Forestry & Paper	28/11/2019	EUR	350	2.88 B1	BB-	NA	
WEPA Hygieneprodukte GmbH*	Construction/Building	28/11/2019	EUR	200	3M EURIBOR +287.5 B1	BB-	NA	
Assemblin Financing AB	Professional Services	29/11/2019	EUR	250	3M EURIBOR +500 B2	B	B+	
Greenrock Finance Inc	Professional Services	29/11/2019	USD	61	3M EURIBOR +875 NA	NA	NA	
Greenrock Finance Inc*	Professional Services	29/11/2019	USD	39	3M LIBOR +700 NA	NA	NA	
Kapla Holding SAS	Professional Services	05/12/2019	EUR	460	3.38 B1	B+	NA	
Kapla Holding SAS*	Construction/Building	05/12/2019	EUR	400	3M EURIBOR +325 B1	B+	NA	
Ellaktor Value plc	Computers & Electronics	05/12/2019	EUR	600	6.38 NA	B	BB	
Sisal Pay SpA	Computers & Electronics	06/12/2019	EUR	530	3M EURIBOR +387.5 B2	BB-	NA	
Cabonline Group AB	Auto/Truck	09/12/2019	SEK	1,800	3M Other +750 NA	NA	NA	
Jaguar Land Rover Automotive plc		17/12/2019	EUR	200	6.88 B1	B+	BB-	

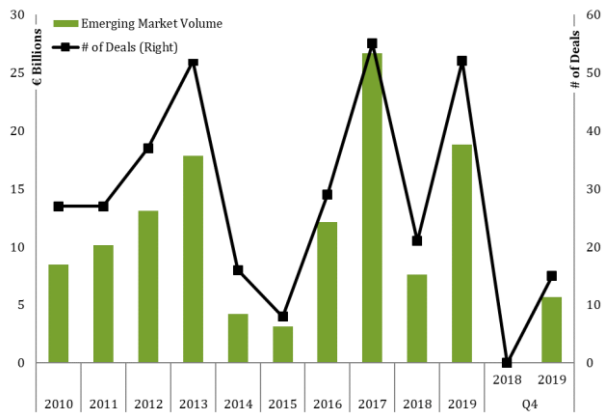
\* denotes multiple tranches of the deal

Source: Dealogic



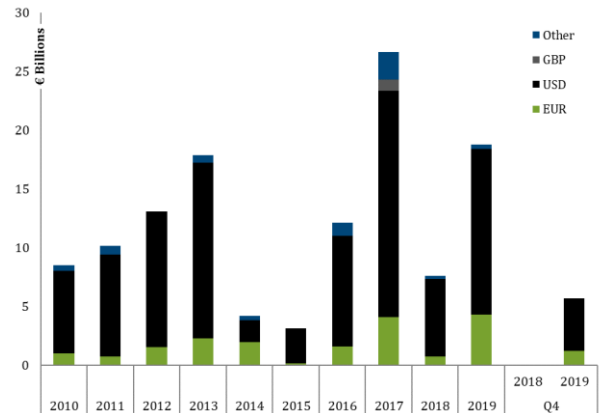
## 5 Issuance – European Emerging Market High Yield Bonds

### 5.1 European Emerging Market HY Bond Issuance



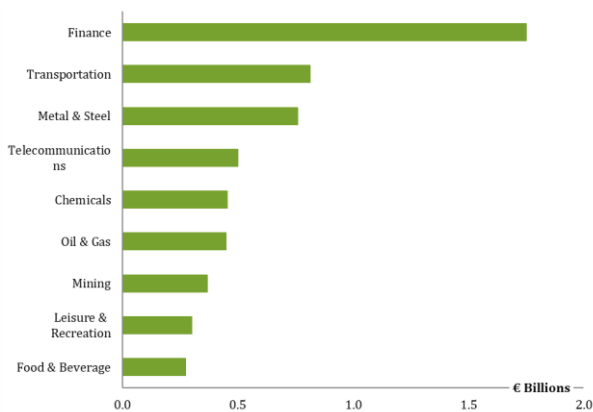
Source: Dealogic

### 5.2 European Emerging Market HY Bond Issuance by Currency



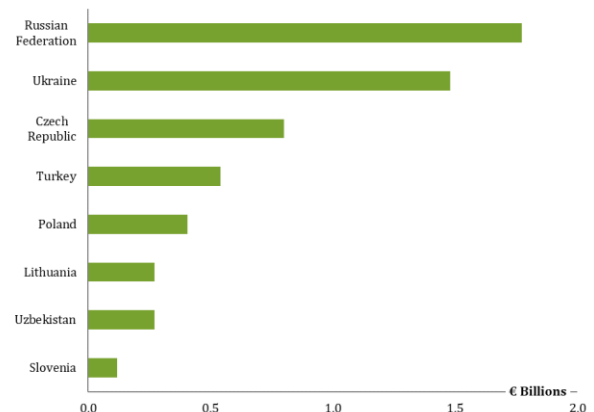
Source: Dealogic

### 5.3 European Emerging Market HY Issuance by Industry: 4Q 2019



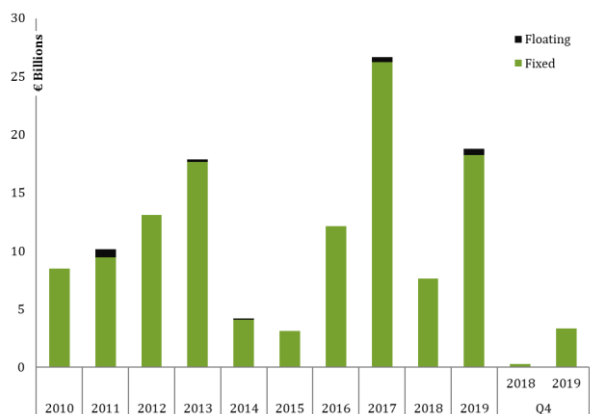
Source: Dealogic

### 5.4 European Emerging Market HY Issuance by Country of Risk: 4Q 2019



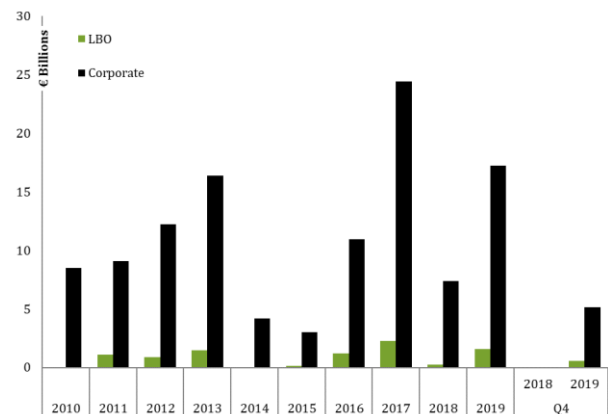
Source: Dealogic

### 5.5 European Emerging Market HY Issuance, Fixed vs. Floating



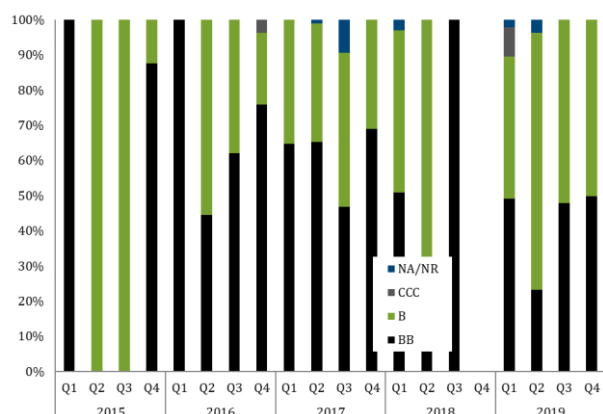
Source: Dealogic

### 5.6 European Emerging Market HY Issuance, Sponsored vs. Corporate



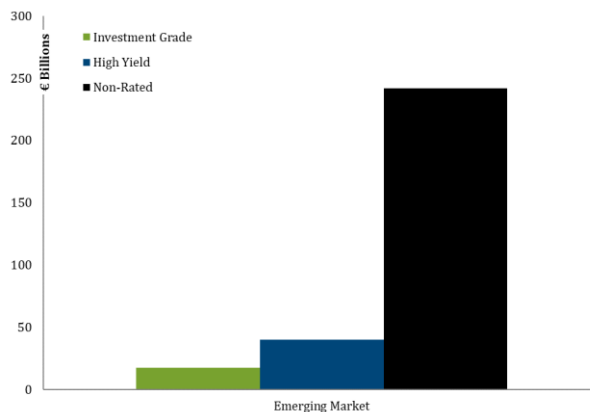
Source: Dealogic

## 5.7 European Emerging Market HY Rating Distribution at Issuance



Source: Dealogic, AFME, SIFMA

## 5.8 European Emerging Market Corporate Bonds Outstanding: 4Q 2019



Source: Bloomberg, AFME, SIFMA

## 5.9 European Emerging Market HY Bond Issuance

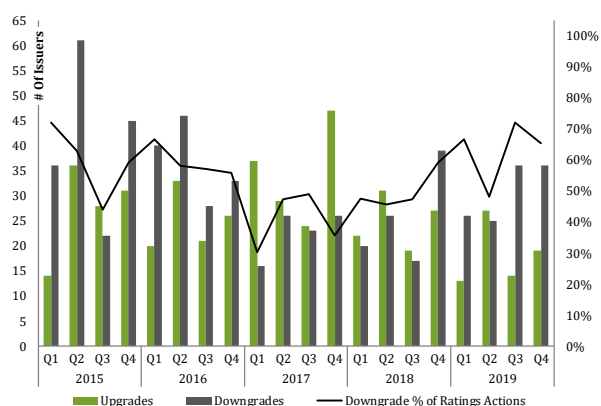
Issuer	Industry Group	Date	Currency	Amount (Millions)	Coupon	Moody's	S&P	Fitch
Metinvest BV	Metal & Steel	01/10/2019	USD	500	7.750	NA	B	BB-
Metinvest BV*	Metal & Steel	01/10/2019	EUR	300	5.625	NA	B	BB-
Celtic Resources Holdings dac	Mining	02/10/2019	USD	400	4.125	Ba2	NA	BB
Alfa Bank	Finance	07/10/2019	USD	400	5.950	B1	NA	BB
Kernel Holding SA	Food & Beverage	10/10/2019	USD	300	6.500	NA	B	BB-
Uralkali OAO	Chemicals	16/10/2019	USD	500	4.000	Ba2	NA	BB-
Home Credit & Finance Bank	Finance	31/10/2019	USD	200	8.800	NA	NA	B-
Naftogaz Ukraine NAK	Oil & Gas	04/11/2019	USD	500	7.625	NA	NA	B
PPF Arena 1 BV	Telecommunications	05/11/2019	EUR	500	2.125	Ba1	BB+	BBB-
Mersin International Port Management Inc	Transportation	07/11/2019	USD	600	5.375	NA	BB-	BB-
Sazka Group as	Leisure & Recreation	12/11/2019	EUR	300	4.125	NA	BB-	BB-
Nova Ljubljanska Banka	Finance	12/11/2019	EUR	120	3.650	NA	BB	NA
Kenbourne Invest SA	Finance	21/11/2019	USD	450	6.875	B1	B+	BB-
Uzbek Industrial-Commercial Bank - Uzpromstroybank	Finance	25/11/2019	USD	300	5.750	NA	BB-	BB-
ASG Finance dac	Transportation	26/11/2019	USD	300	7.875	NA	BB	BB
Alfa Bank	Finance	27/11/2019	USD	450	5.950	B1	NA	BB

\* denotes multiple tranches of the deal

Source: Dealogic

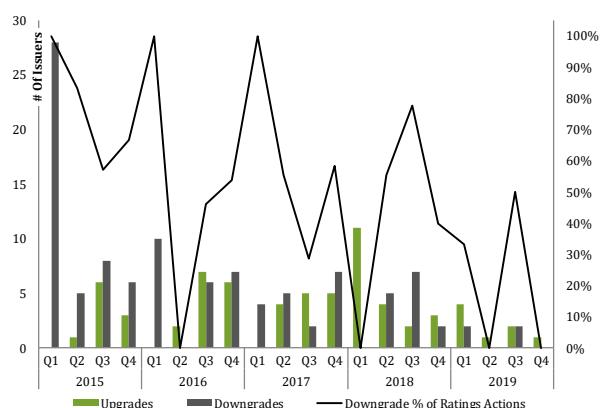
## 6 Credit Quality

### 6.1 S&P: Developed Market Europe Issuer Rating Actions<sup>5</sup>



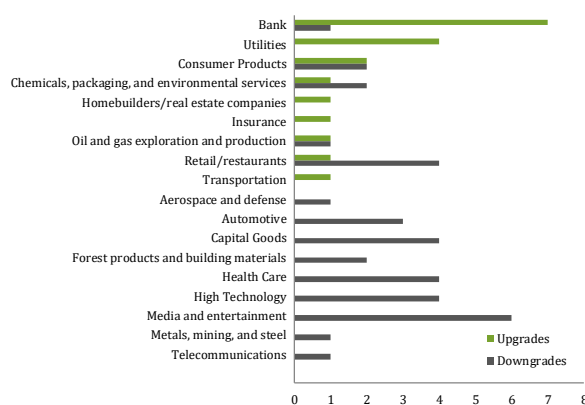
Source: Standard and Poor's

### 6.2 S&P: Emerging Market Europe Issuer Rating Actions<sup>6</sup>



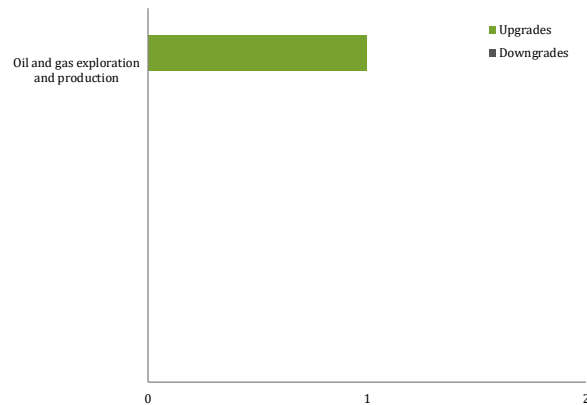
Source: Standard and Poor's

### 6.3 S&P: Developed Market Europe Industry Rating Actions by Number of Ratings: 4Q 2019



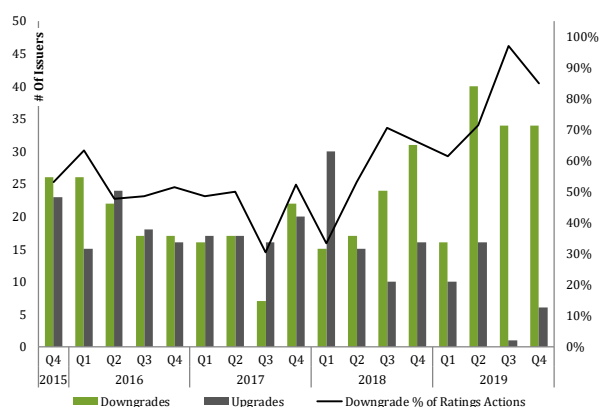
Source: Standard and Poor's

### 6.4 S&P: Emerging Market Europe Industry Rating Actions by Number of Ratings: 4Q 2019



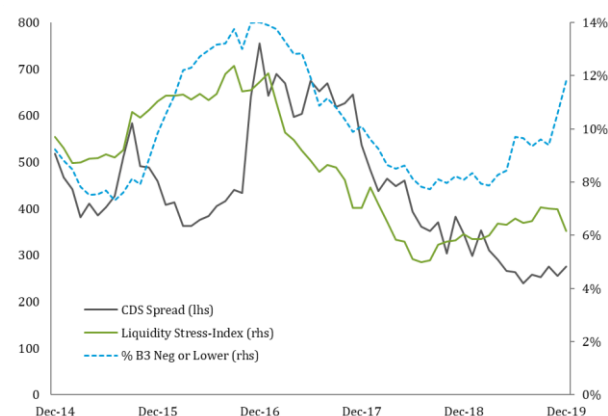
Source: Standard and Poor's

### 6.5 Moodys: Europe Issuer Rating Actions: corporate



Source: Moody's

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

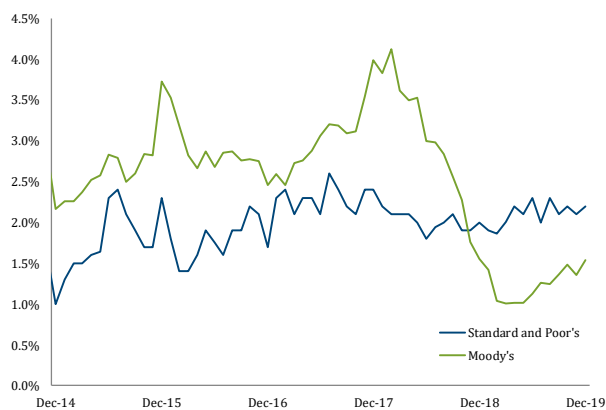


Source: Moody's

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

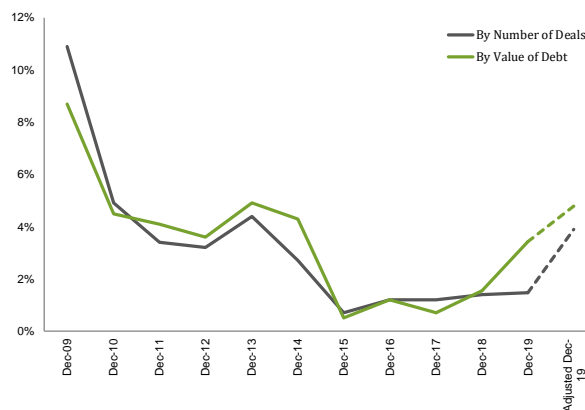
<sup>6</sup> Numbers include both corporate and sovereigns.

## 6.7 European High Yield Default Rates



Source: Standard & Poor's, Moody's

## 6.8 European Leveraged Loan Default Rates<sup>7</sup>



Source: Fitch Leveraged Credit Database

## 6.9 European Defaults

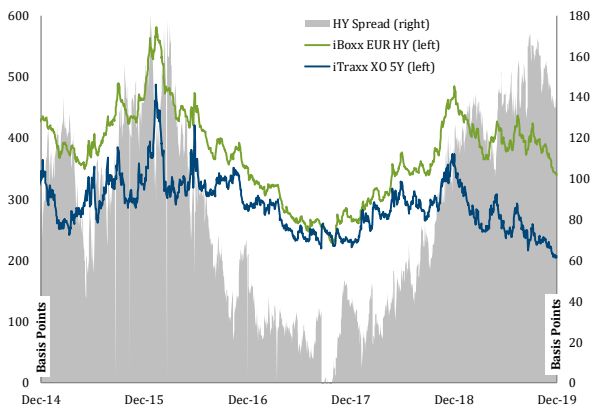
syncreon Group Holdings B.V.	Consumer products	Netherlands	October 2019	S&P	Distressed exchange
Lecta S.A.	Forest products: paper packaging	Spain	December 2019	Moody's	Missed interest payment
PizzaExpress	Restaurants: family dining	U.K.	December 2019	S&P, Moody's	Distressed exchange
Officine Maccaferri S.p.A.	Manufacturing: Building materials	Italy	December 2019	Moody's	Missed interest payment
Novartex	Consumer products	France	December 2019	S&P	Distressed exchange
Mallinckrodt plc	Health care	Ireland	December 2019	S&P	Distressed exchange

Source: Standard and Poor's, Moody's

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

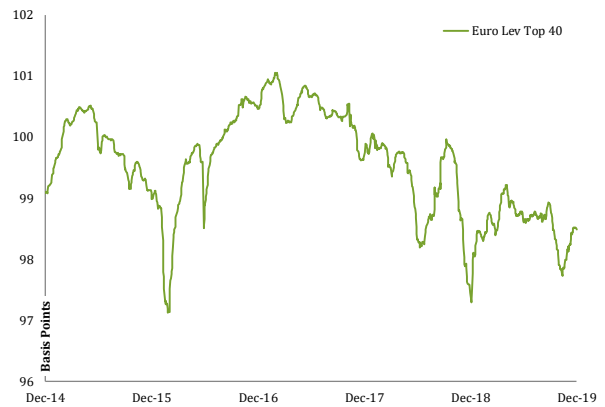
## 7 Relative Value and Total Return

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



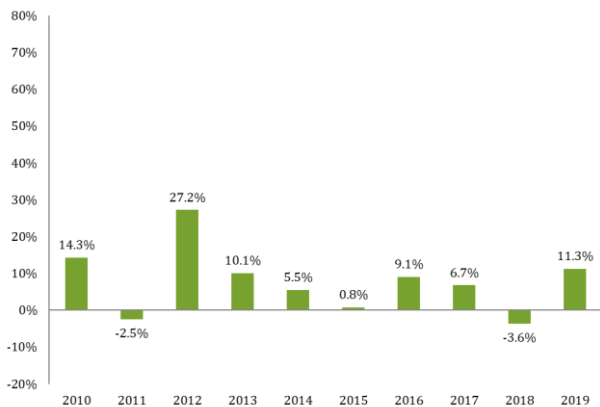
Source: Thomson Reuters Eikon, Markit

### 7.2 Relative value: European Leveraged Loans, Cash



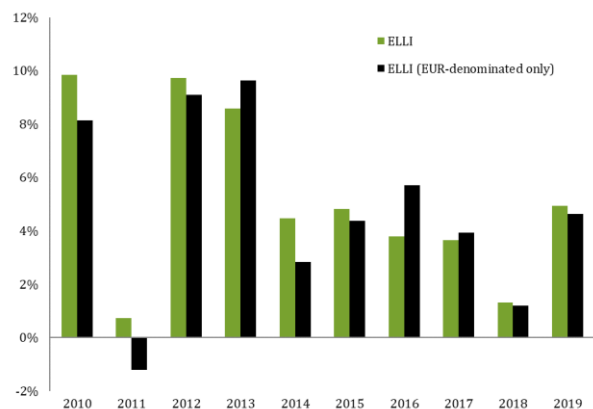
Source: Thomson Reuters LPC

### 7.3 European Leveraged Loan Total Return



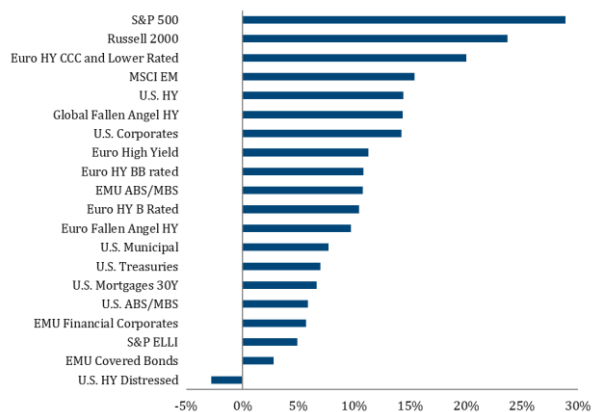
Source: BAML

### 7.4 European Leveraged Loan Total Return



Source: Standard & Poor's LCD

### 7.5 Asset Class Total Y-o-Y Return: 4Q 2019



Source: BAML, Bloomberg

## Summary of the Methodologies Adopted for this Report

### 1. Leveraged Issuance – Overview

#### 1.1. – 1.3. Leveraged Loans and High Yield Bonds

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

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

#### 1.4. – 1.7. Bank Lending Surveys

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

#### 1.8. Global Comparison – High Yield Issuance

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

### 2. Issuance – Leveraged Loans

#### 2.1. – 2.2. Leveraged Loan Issuance

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

#### 2.3. Forward Pipeline of Leveraged Loan Market

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

#### 2.4. S&P ELLI Total Institutional Loans Outstanding

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

#### 2.5. S&P ELLI Ratings Diversification

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

#### 2.6. – 2.7. Loan Spreads

Loan spread data are sourced from Dealogic under our criteria for leveraged loans (see Section 1). For purposes of loan spread calculations, deals marketed in the US are excluded. Spreads are a weighted average of spread margin on new leveraged issuance on a rolling twelve months basis, and are typically benchmarked to LIBOR or EURIBOR. Institutional loan spread data are inclusive of 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 non-Bloomberg verified securities, all structured notes, covered bonds, warrants, deposit notes, receipts, and certificates of deposit. All currencies are included and have been converted to EUR at time of pricing and/or issue.

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

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

### 3.7. European Corporate Bond Issuance by Rating

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

### 3.8. European Corporate Bond Issuance by Tenor

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

### 3.9. European HY Issuance By Use of Proceeds

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

## 4. Issuance – European Developed Market High Yield Bonds

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

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

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

### 4.8. European Developed Market Corporate Bonds Outstanding

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

## 5. Issuance – European Emerging Market High Yield Bonds

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

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

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

### 5.8. European Emerging Market Corporate Bonds Outstanding

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



## 6. Credit Quality

### 6.1. – 6.2. European Issuer Rating Actions

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

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

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

### 6.5. European Issuer Rating Actions: Moody's

European issuer upgrades and downgrades according to Moody's. Multiple downgrades of a single issuer are counted separately. Rating actions are exclusively of corporates (both credit and merger-related).

### 6.6. High-Yield bond CDS spreads vs. liquidity-stress index and HY bonds rated B3 neg 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

### 6.7. European High Yield Default Rates

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.

### 6.8. European Leveraged Loan Default Rate

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

### 6.9. 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 indice

## Annex

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