



REUTERS/Thomas Peter

# LEVERAGED LOAN MONTHLY

THOMSON REUTERS LPC

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THURSDAY SEPTEMBER 15, 2016

MARRIOTT MARQUIS, NEW YORK CITY

At this point in the credit cycle, what are the risks and where are the wildcards? How are portfolios holding up and where are the trouble spots? How do you avoid missteps and uncover new possibilities?

### LATE CYCLE: ASSESSING RISK, DISCOVERING NEW OPPORTUNITIES

Thomson Reuters LPC hosts our annual Loan and CLO Conference in September each year. This post-Labor Day timing enables us to gather key decision-makers in the loan market as they are formulating their strategies for the last quarter of the year and for the new year to come.

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### FOR MORE INFORMATION

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# LEVERAGED LOAN MONTHLY

Key Points

Slides 4-6

Leveraged Loan Market Overview

Slides 7-35

High Yield Bond Market Overview

Slide 36-42

Investor Overview

Slide 43-47

CLO Market Analysis

Slide 48-59

List of Recent CLOs / League Tables

Slide 60-74

Loan Fund Flows & Returns

Slide 75-78

# KEY POINTS

- First half 2016 leveraged loan issuance amounted to \$344 billion, down 16% from the same period a year ago. Breaking it out by segment, pro rata volume at \$199 billion was down 16%, while the \$145 billion of institutional deal flow was off 14%.
  - On a quarterly basis, leveraged loan issuance at \$214 billion in 2Q16 was up 64% from the 1Q16 level. The increase was driven by a jump in institutional issuance to \$106 billion from \$39 billion in the prior quarter. In comparison, pro rata volume increased to \$108 billion in 2Q16 from \$91 billion in 1Q16.
  - The top industries in terms of leveraged loan and institutional loan issuance this year is Technology followed by Retail and Healthcare.
  - Close to two-thirds of institutional issuance (\$91 billion) this year is for new money purposes. Though refinancing activity did pick up in 2Q16, refinancing overall in 1H16 was down 38% to \$55 billion from the same period last year.
- M&A leveraged loan volume at \$134 billion in 1H16 is very similar to the level of deal flow posted in the same period a year ago. LBO loan issuance was up 3% year over year to \$37 billion, while non-LBO volume was down 2% to \$97 billion.
- Seventy Seven Operating LLC defaulted in June with institutional debt amounting to \$492 million. This brought year to date institutional loan default volume to \$10.7 billion. Much of the risk has been concentrated in specific sectors, with the troubled metals & mining (\$5.8 billion) and energy (\$4.7 billion) industries accounting for the largest share of institutional loan defaults in the last year.

# KEY POINTS

- First half 2016 average debt to EBITDA levels ticked up to 6.04 times for broadly syndicated LBO transactions, and fell to 5.1 times for institutional middle market LBOs. On a quarterly basis, large corporate LBO leverage trended lower in 2Q16, averaging 5.95 times.
- Average purchase price multiples increased to 11.3 times for broadly syndicated LBOs in 1H16. In comparison, institutional middle market deals went for lower multiples in the first half of the year, averaging 9.9 times.
- High yield bond issuance slipped to \$24 billion in June, bringing year-to-date issuance to \$119 billion, which is down 34% from the same period last year.
- European leveraged loan issuance is at \$68 billion year to date, with M&A and new money volume representing 56% of deal flow. Leveraged loan issuance is down 47% year over year, with refinancings off 60% and M&A/new money down 30%.
- Loan bids edged higher in June despite a late month softening following Brexit, with institutional term loans finishing the month at 94.06, up 12 bps. In contrast, the flow name SMi100 was down 41 bps to 97.99. Year to date, multi-quote institutional term loans are up around 100 bps.
- Looking across industries, transportation (99.02), hotel & gaming (98.72), and restaurants (98.72) credits are bid highest on average, while oil & gas and mining are the lowest.
- Both European and US flow loan prices softened in June, with most of the drop in European bids coming in the aftermath of the Brexit vote. European flow names finished down 96 bps in June and now average 98.90.

# KEY POINTS

- Loan returns were basically flat in June. Open-end loan fund returns were marginally negative at -0.02%, while the S&P/LSTA index ticked up up 0.02%. Year to date, open-end loan funds have gained 3.97%, with the index up 4.51%. Individual open-end fund YTD returns range from 0.89% to 6.33%.
- U.S. CLO issuance increased to \$6.6 billion (15 deals) in June from \$5.4 billion (13 deals) in May. This brought YTD issuance to \$26.2 billion (62 deals), down sharply from \$60.4 billion (115 deals) in the same period last year.
- The European CLO market added another €1.64 billion of issuance from four deals in June. Issuance through June is at €7.2 billion (18 deals), down from €7.8 billion (20 deals) in the same period last year.
- Assets from the United States (18.8%), Germany (15.6%) and France (13.8%) are the most widely held in European CLO 2.0s. Next is the U.K. which accounts for 13% of assets.
- Assets under management increased to \$434 billion for U.S. CLOs and €64 billion for European CLOs.
- Based on the most recent data available, loan funds saw \$572 million exit in June, bringing year to date outflows to \$6.8 billion. In comparison, HY bond fund flows posted another \$3.4 billion of outflows in June. Despite this, HY bond funds have added \$3.4 billion year to date.
- U.S. loan mutual fund & ETF assets under management (market value) declined by 1% in June to roughly \$112 billion. Year to date, AUM is down over \$3 billion.



REUTERS/Petar Kujundzic

## LEVERAGED LOAN MARKET OVERVIEW

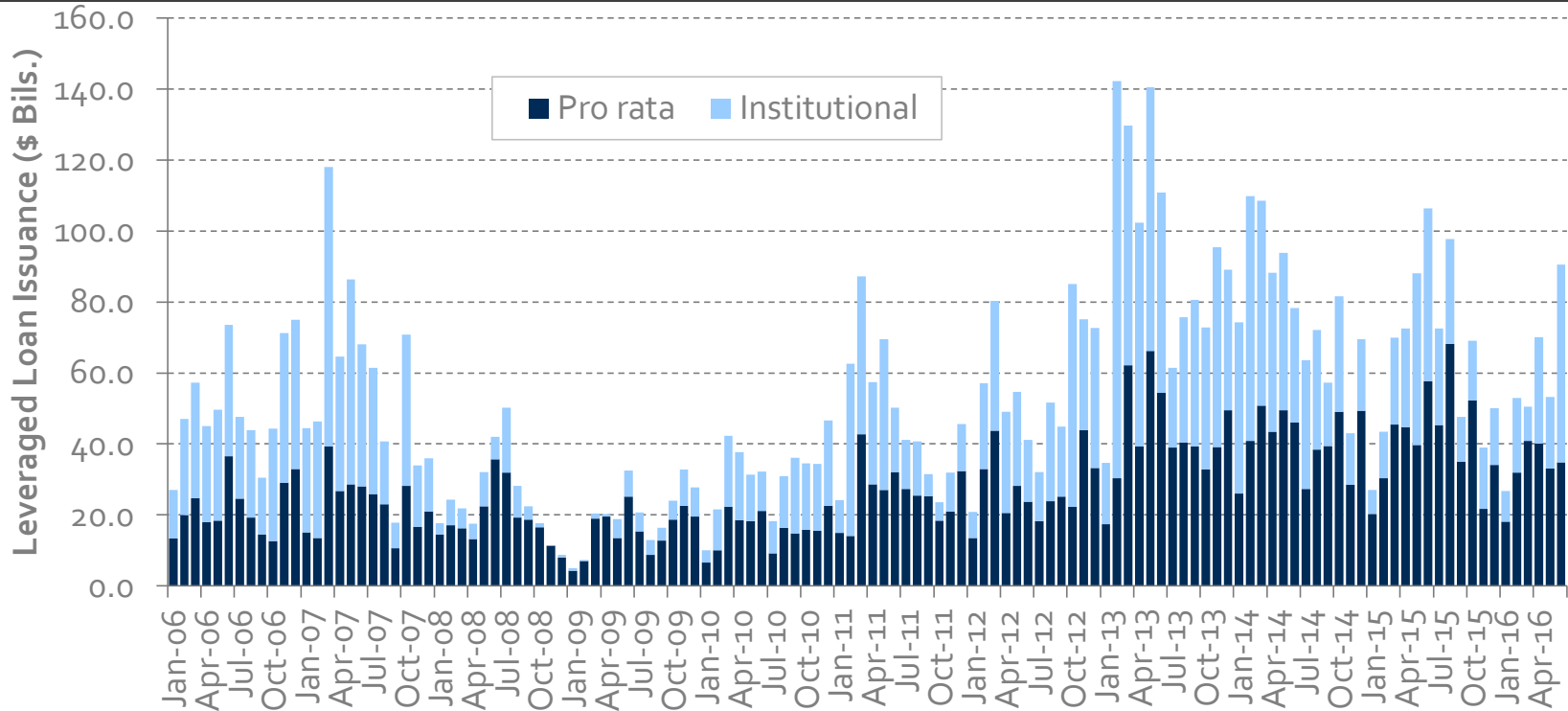
\*2016 loan volumes are based on the most recently available data and is subject to updates throughout the quarter.



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# LEVERAGED LOAN ISSUANCE: PRO RATA VS. INSTITUTIONAL

U.S. LEVERAGED LOAN ISSUANCE



- First half 2016 leveraged loan issuance amounted to \$344 billion, down 16% from the same period a year ago. Breaking it out by segment, pro rata volume at \$199 billion was down 16%, while the \$145 billion of institutional deal flow was off 14%.
- On a quarterly basis, leveraged loan issuance at \$214 billion in 2Q16 was up 64% from the 1Q16 level. The increase was driven by a jump in institutional issuance to \$106 billion from \$39 billion in the prior quarter. In comparison, pro rata volume increased to \$108 billion in 2Q16 from \$91 billion in 1Q16.



# 1H 2016 LEVERAGED LOAN ISSUANCE BY INDUSTRY

<b>Industry</b>	<b>Lev. Vol. (\$Bils.)</b>	<b>% of Lev. Vol</b>
Technology	65.45	19.0%
Retail & Supermarkets	32.38	9.4%
Healthcare	32.30	9.4%
General Manufacturing	24.02	7.0%
Business Services	16.22	4.7%
Beverage, Food, and Tobacco Processing	14.06	4.1%
Services	13.41	3.9%
Chemicals, Plastics & Rubber	13.30	3.9%
Wholesale	13.27	3.9%
Oil and Gas	12.54	3.6%
Media	11.82	3.4%
REITS	11.67	3.4%
Financial Services	11.54	3.4%
Automotive	11.46	3.3%
n/a	7.83	2.3%
Aerospace and Defense	5.83	1.7%
Utilities	5.72	1.7%
Textiles and Apparel	5.51	1.6%
Hotel & Gaming	5.39	1.6%
Restaurants	5.24	1.5%
Leisure and Entertainment	5.13	1.5%
Telecommunications	4.96	1.4%
Paper & Packaging	4.24	1.2%
Construction	2.70	0.8%
Shipping	2.62	0.8%
Agriculture	2.53	0.7%
Transportation	2.08	0.6%
Mining	0.82	0.2%



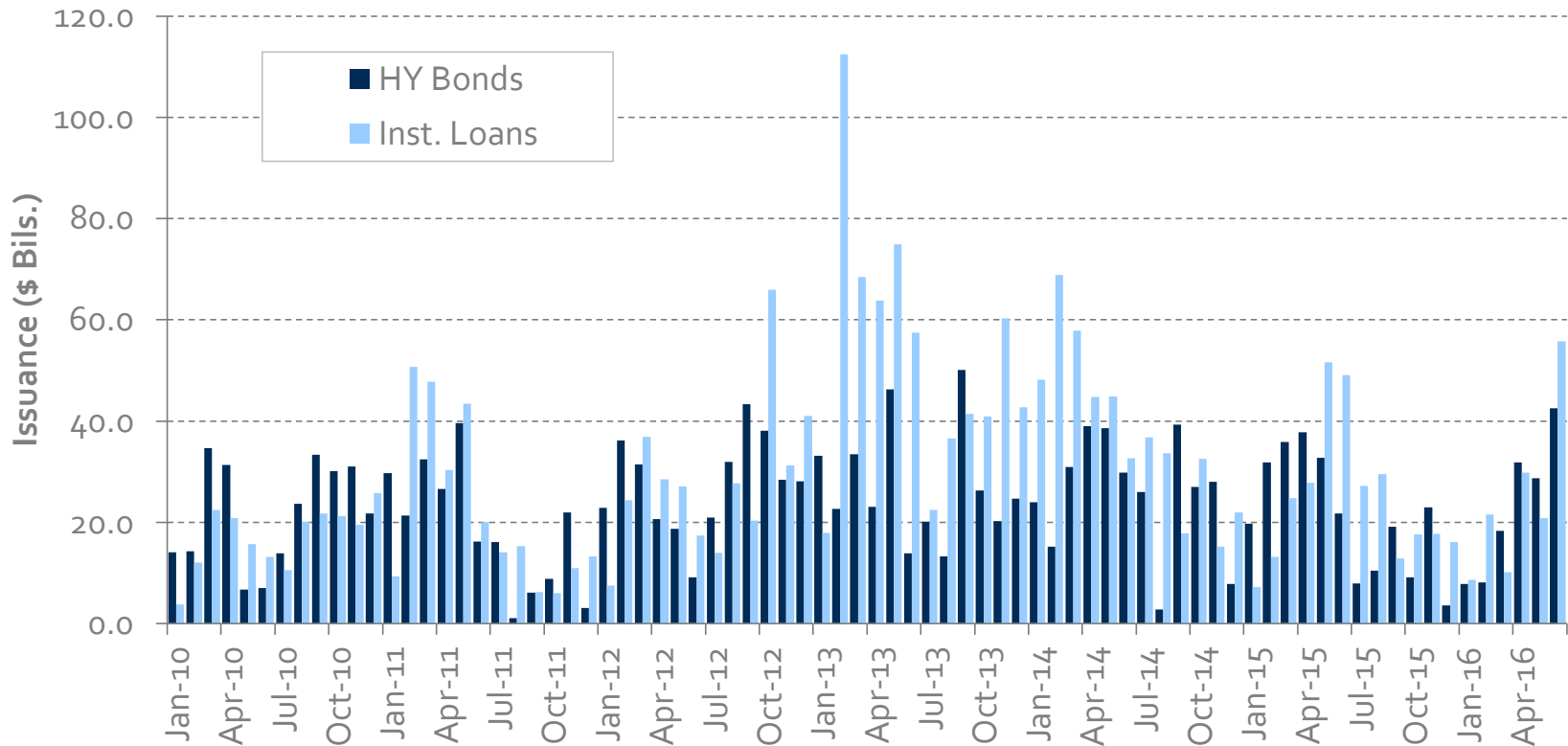
# 1H 2016 INSTITUTIONAL LOAN ISSUANCE BY INDUSTRY

<b>Industry</b>	<b>Inst. Vol. (\$Bils.)</b>	<b>% of Inst. Vol</b>
Technology	40.53	27.6%
Retail & Supermarkets	19.48	13.3%
Healthcare	17.73	12.1%
Business Services	9.13	6.2%
Chemicals, Plastics & Rubber	6.07	4.1%
Services	5.96	4.1%
Media	4.64	3.2%
Beverage, Food, and Tobacco Processing	4.18	2.9%
n/a	4.09	2.8%
Wholesale	3.84	2.6%
General Manufacturing	3.62	2.5%
Financial Services	3.51	2.4%
Automotive	3.45	2.4%
Paper & Packaging	3.11	2.1%
Aerospace and Defense	3.05	2.1%
Restaurants	2.01	1.4%
Hotel & Gaming	1.98	1.4%
REITS	1.85	1.3%
Leisure and Entertainment	1.80	1.2%
Utilities	1.54	1.0%
Transportation	1.08	0.7%
Construction	0.90	0.6%
Agriculture	0.80	0.5%
Telecommunications	0.80	0.5%
Textiles and Apparel	0.68	0.5%
Oil and Gas	0.50	0.3%
Shipping	0.28	0.2%



# U.S. INSTITUTIONAL LOAN AND HY BOND ISSUANCE

## U.S. LOAN AND BOND ISSUANCE

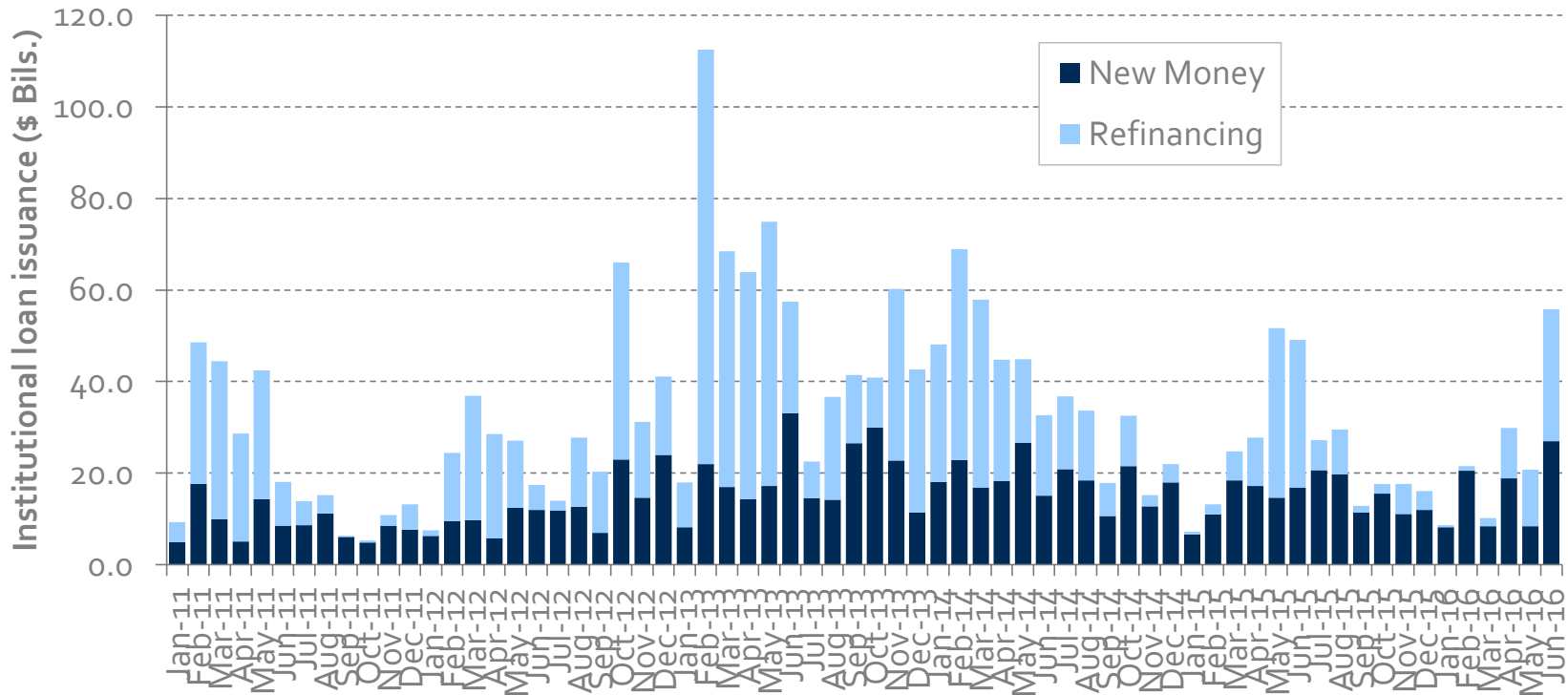


- Institutional loan issuance totaled \$147 billion in 1H16, down from \$174 billion in the same period last year. Looking at the numbers by quarter, institutional issuance jumped sharply to \$106 billion in 2Q16 from a lowly \$40 billion in 1Q16.
- High yield bond issuance slipped to \$24 billion in June, bringing year-to-date issuance to \$119 billion, which is down 34% from the same period last year.



# U.S. INSTITUTIONAL ISSUANCE: NEW MONEY VS. REFINANCING

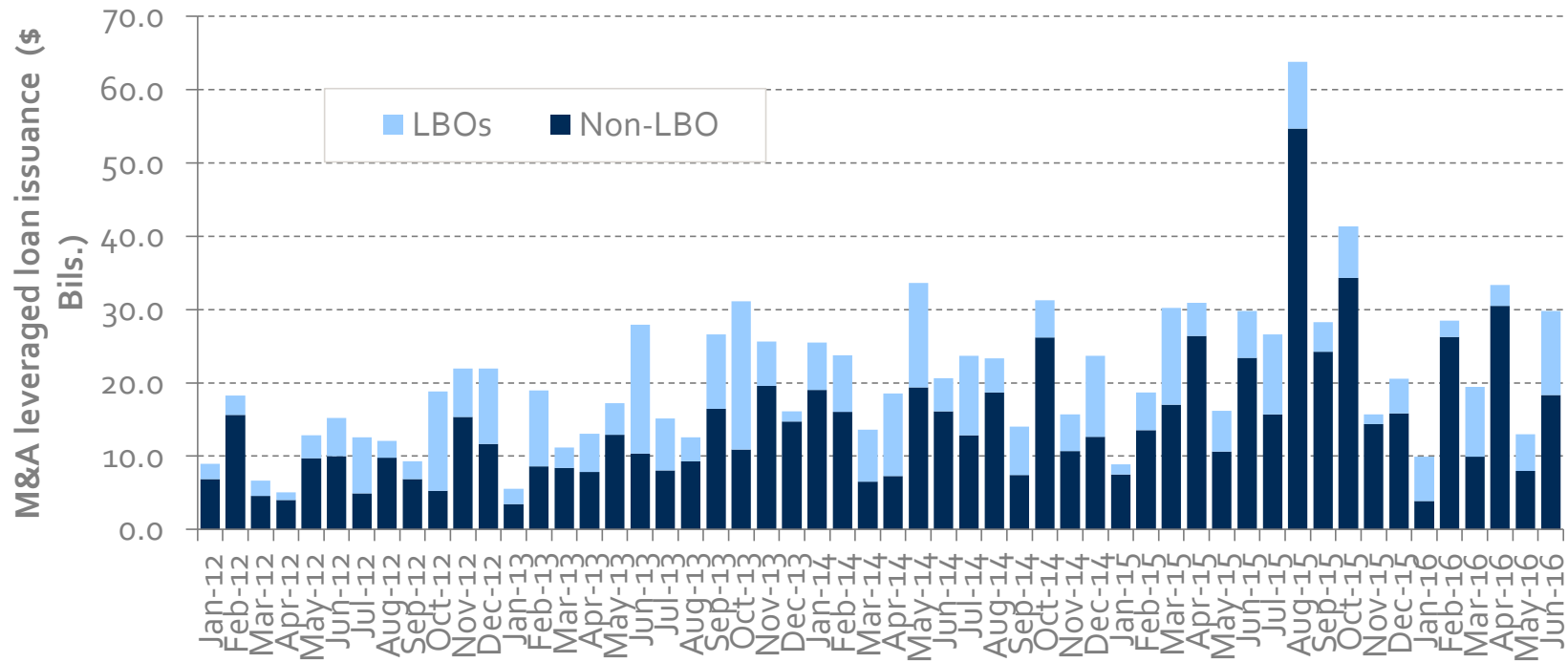
U.S. INSTITUTIONAL LOAN ISSUANCE



- Close to two-thirds of institutional issuance (\$91 billion) this year is for new money purposes.
- Though refinancing activity did pick up in 2Q16, refinancing overall in 1H16 was down 38% to \$55 billion from the same period last year.

# M&A LEVERAGED LOAN ISSUANCE

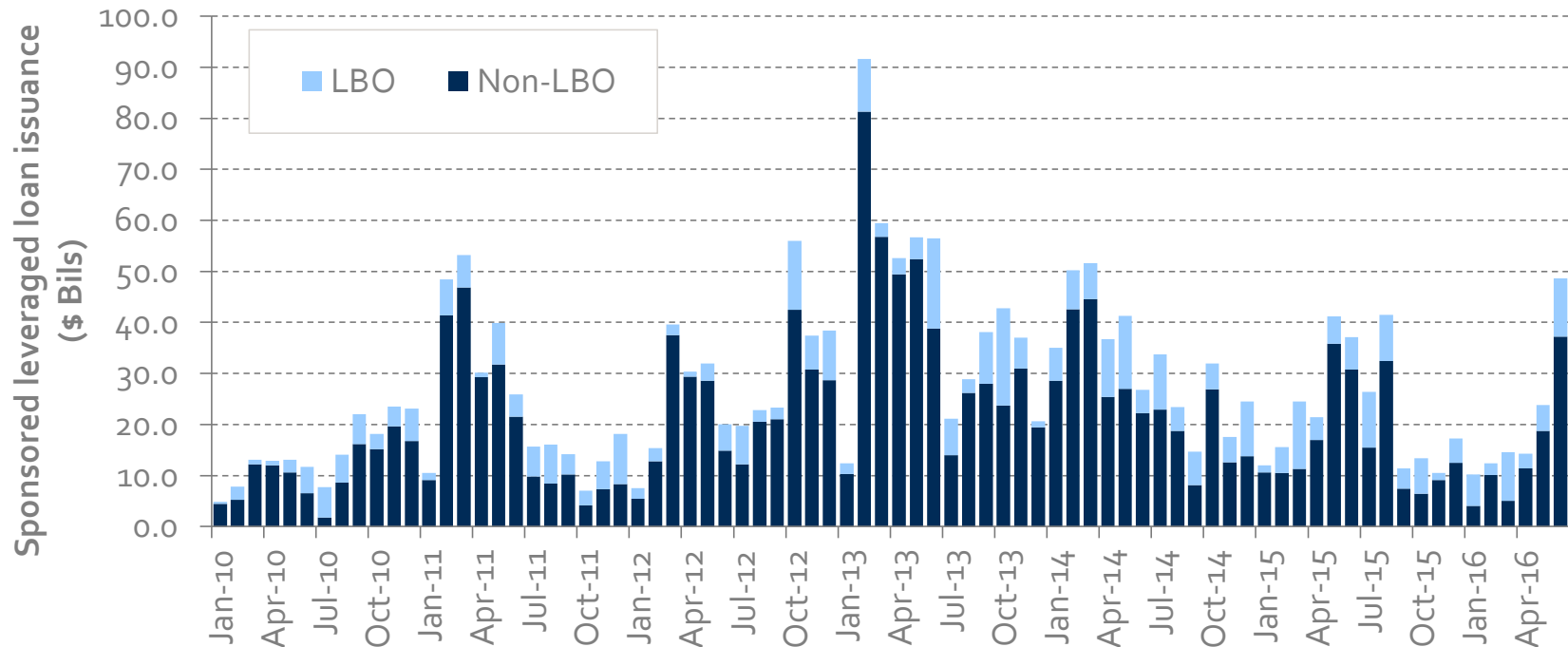
U.S. M&A LEVERAGED LOAN ISSUANCE



- M&A leveraged loan volume at \$134 billion in 1H16 is very similar to the level of deal flow posted in the same period a year ago.
- LBO loan issuance was up 3% year over year to \$37 billion, while non-LBO volume was down 2% to \$97 billion.

# SPONSORED LEVERAGED LOAN ISSUANCE: LBO VS. NON-LBO

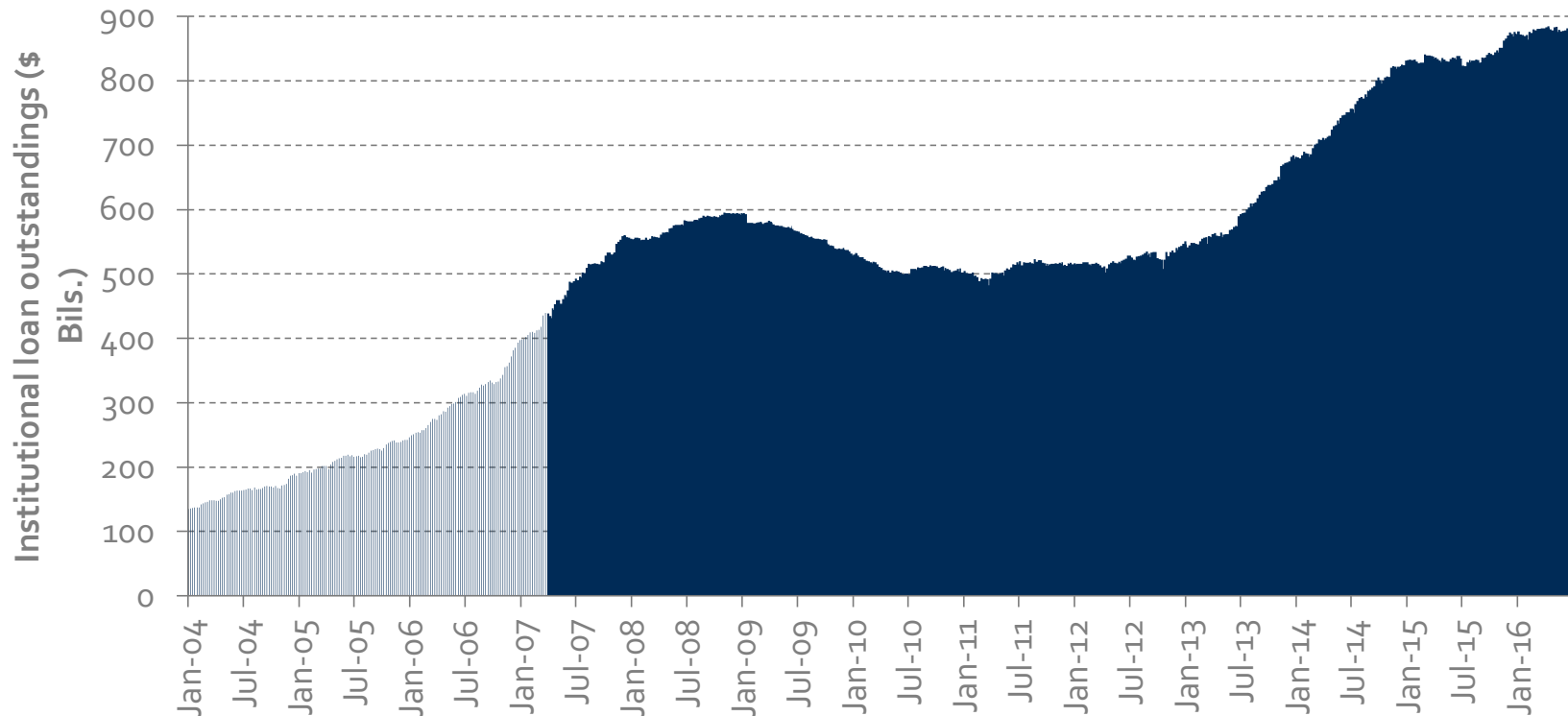
## SPONSORED LOAN ISSUANCE: LBO VS. NON-LBO



- Overall sponsored leveraged loan volume amounted to \$124 billion in the first half of the year, with less than one-third (30%) comprised of LBO activity.
- Non-LBO sponsored activity was down 25%, while LBO volume edged up 4% year over year.

# INSTITUTIONAL LOAN OUTSTANDINGS

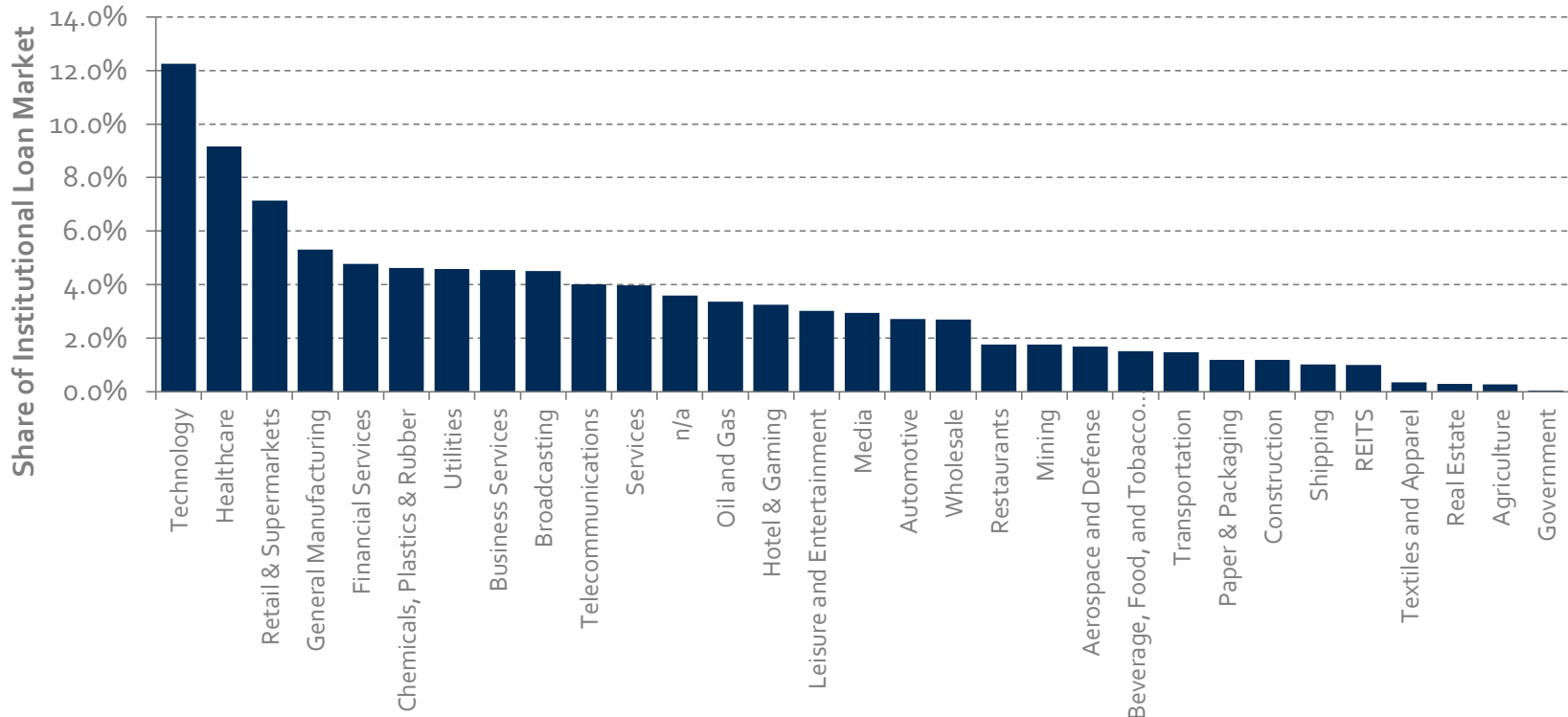
## INSTITUTIONAL LOAN OUTSTANDINGS



- Institutional loan market outstandings edged higher in June to \$886 billion.
- Year to date, outstandings are up 1.6%.

# INDUSTRY BREAKDOWN OF INSTITUTIONAL LOAN OUTSTANDINGS

## INDUSTRY BREAKDOWN



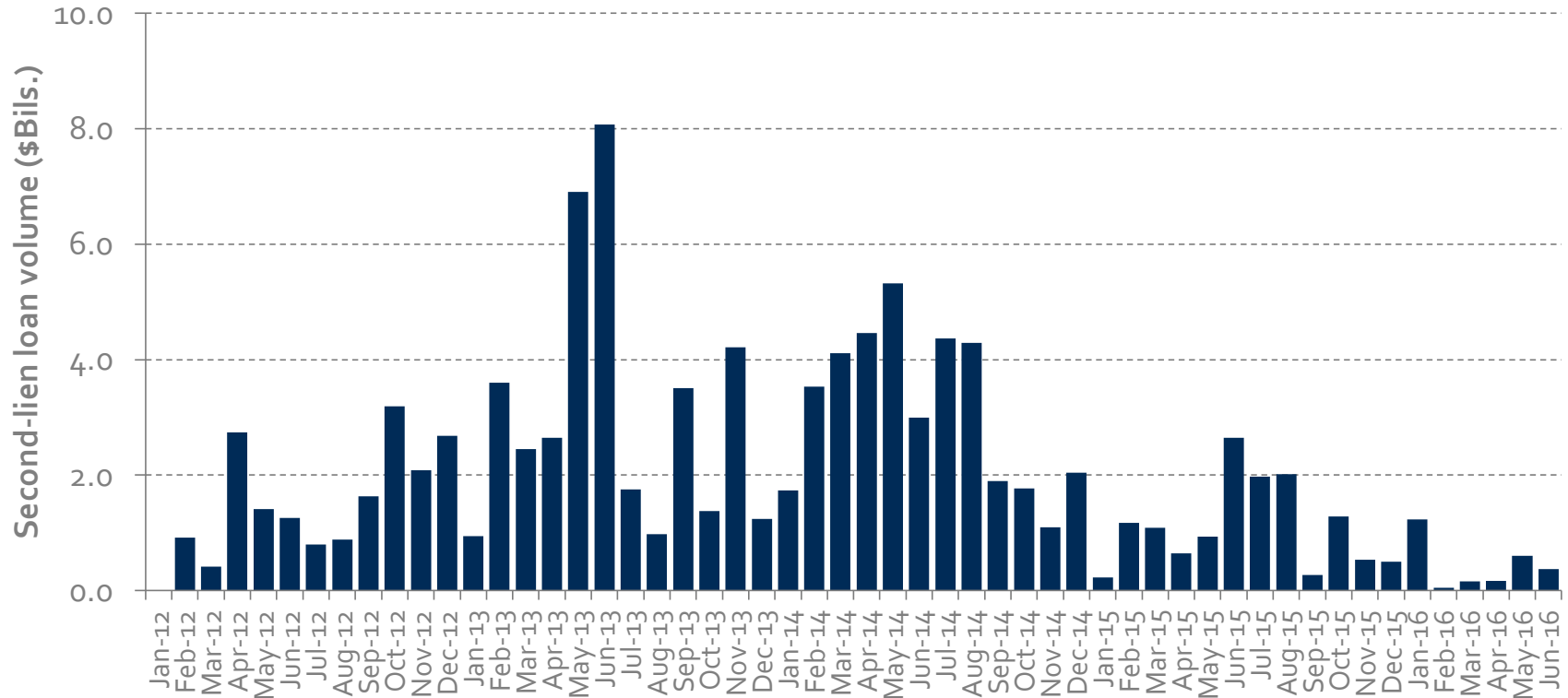
- Technology (12%), Healthcare (9%), and Retail (7%) are the biggest sectors in the institutional loan market.
- The top 5 sectors account for 39% of outstanding institutional debt, while the top 10 sectors account for 61%.





# SECOND-LIEN LOAN VOLUME

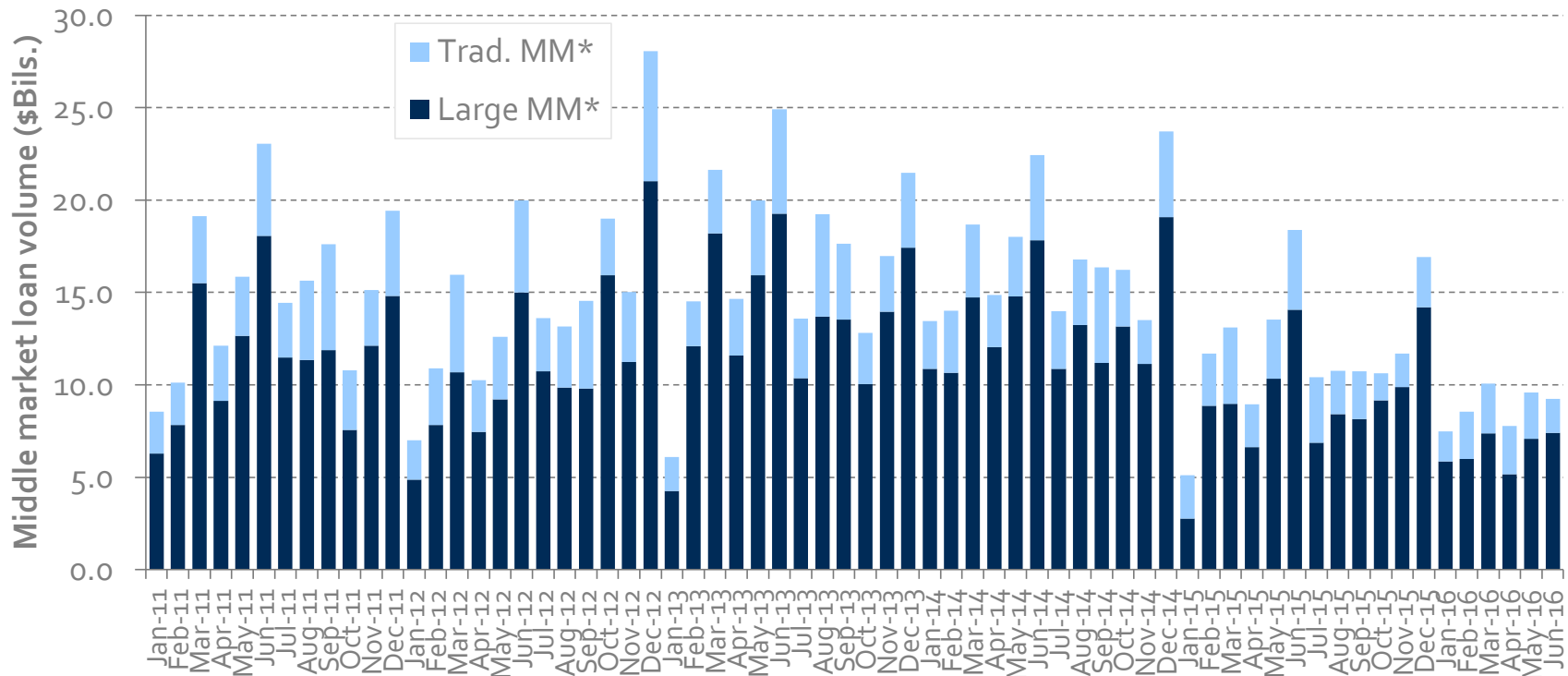
U.S. SECOND-LIEN LOAN VOLUME



- Second-lien issuance remains limited this year, amounting to only \$2.6 billion, down 61% from the corresponding period a year ago.

# MIDDLE MARKET LOAN ISSUANCE

U.S. MIDDLE MARKET LOAN VOLUME

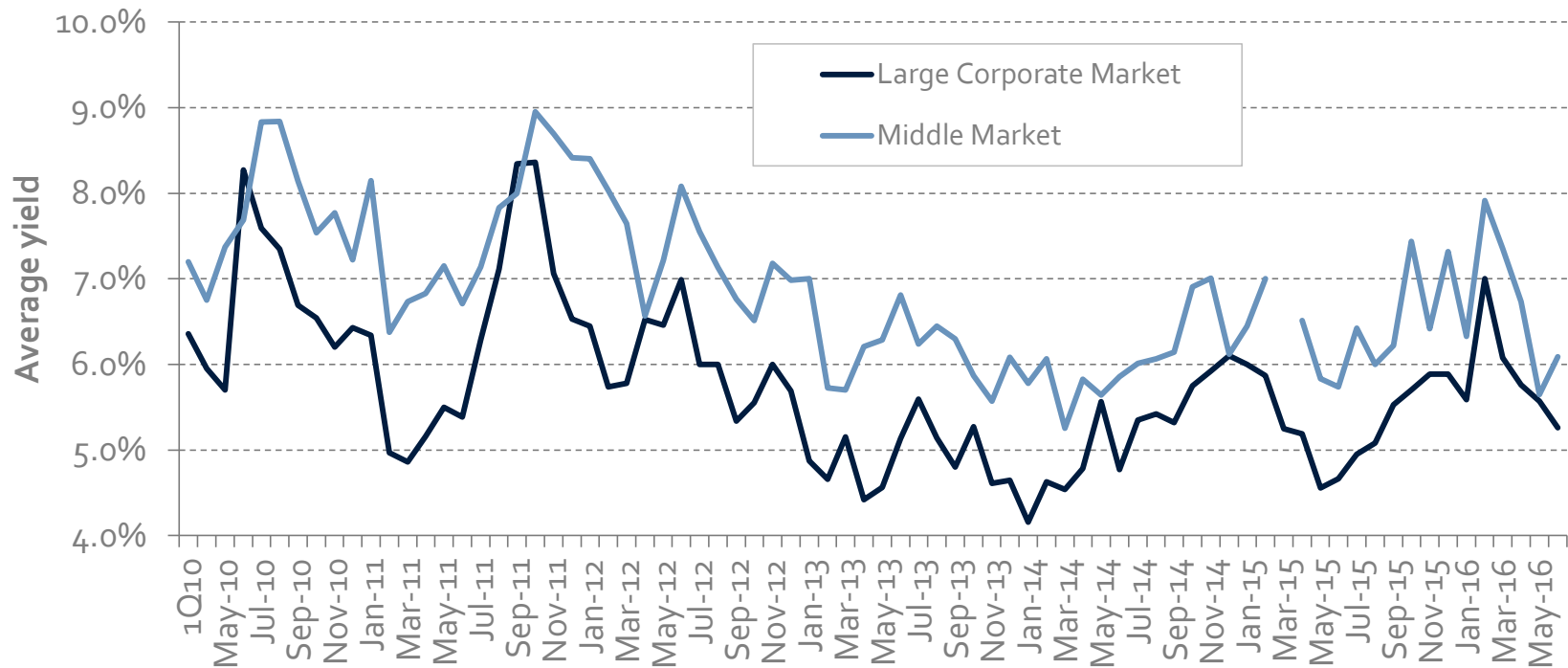


\*Traditional MM: Deal Size <=\$100M, Large MM: Deal Size >\$100M to \$500M, For all: Borrower Sales <\$500M

- Middle market lending has totaled \$53 billion so far in 2016, down from \$71 billion a year ago.
- Middle market volume is comprised of \$39 billion of large middle market issuance (down 25% YoY) and \$14 billion in traditional MM volume (down 28% YoY).

# PRIMARY MARKET YIELDS

## U.S. PRIMARY MARKET INSTITUTIONAL LOAN YIELDS

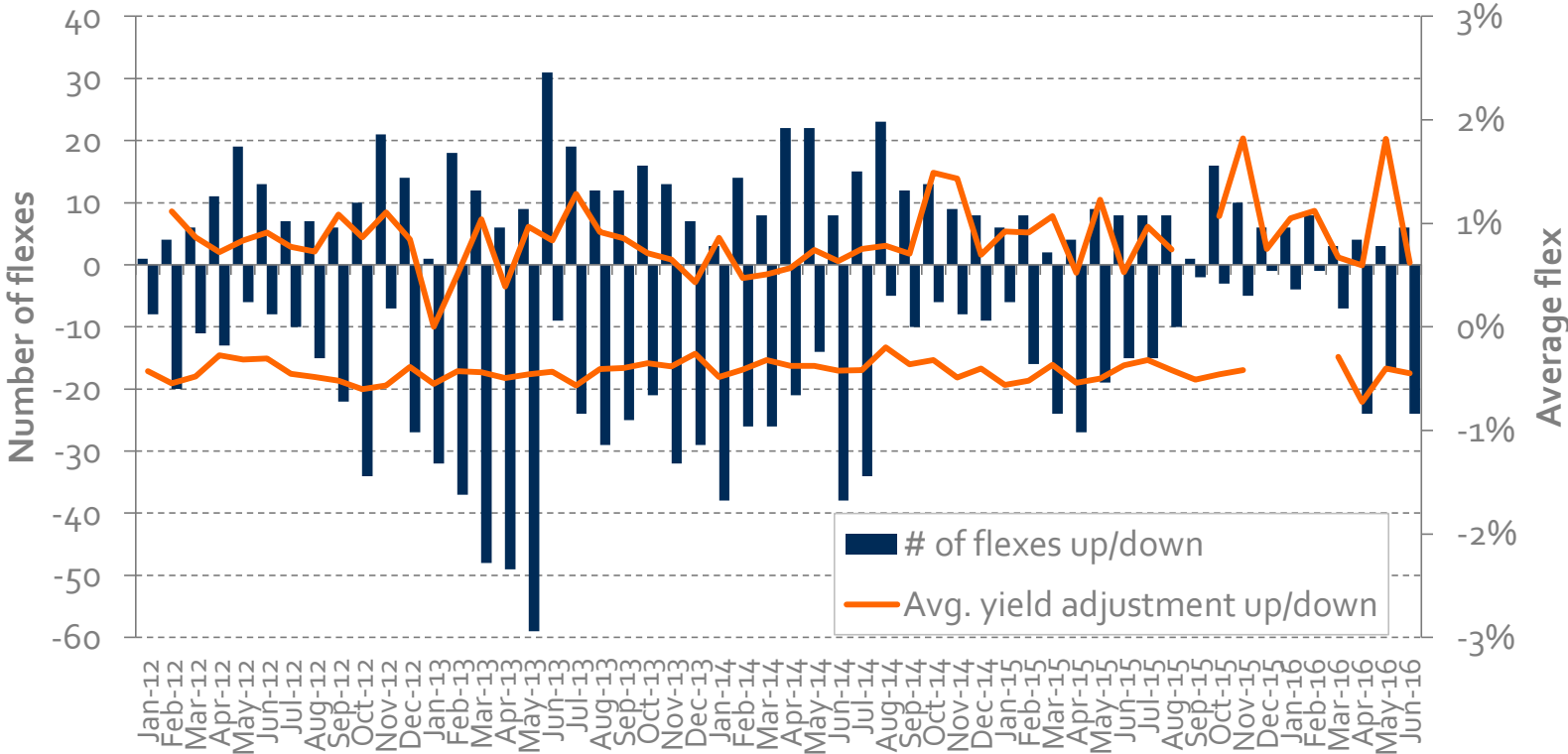


- In the large corporate market, new issue yields tightened to an average of 5.5% in 2Q16 from 6.2% in 1Q16.
- It was a similar trend for middle market credits, with yields tightening to 6.3% in 2Q16 from 7.3% in the prior quarter.



# INSTITUTIONAL LOAN FLEX ACTIVITY

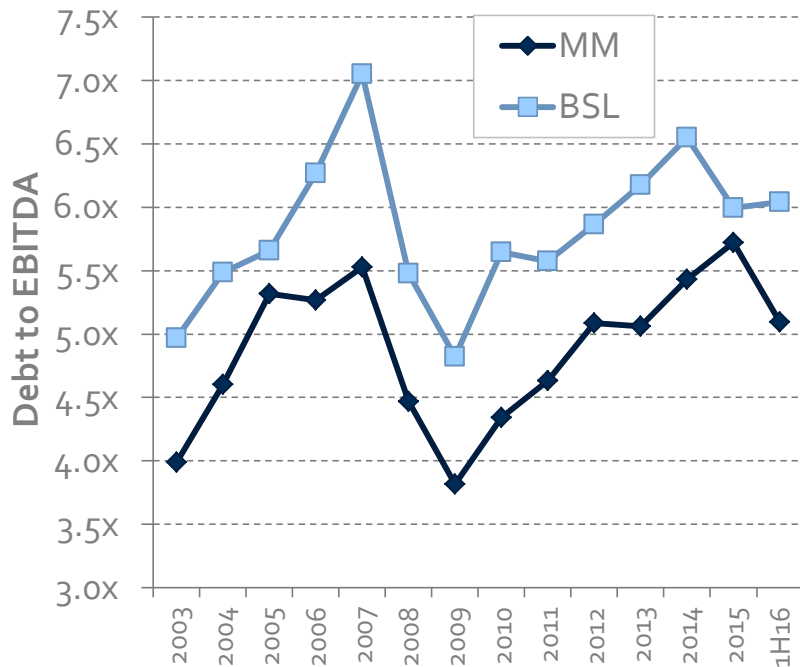
### INSTITUTIONAL LOAN FLEX ACTIVITY



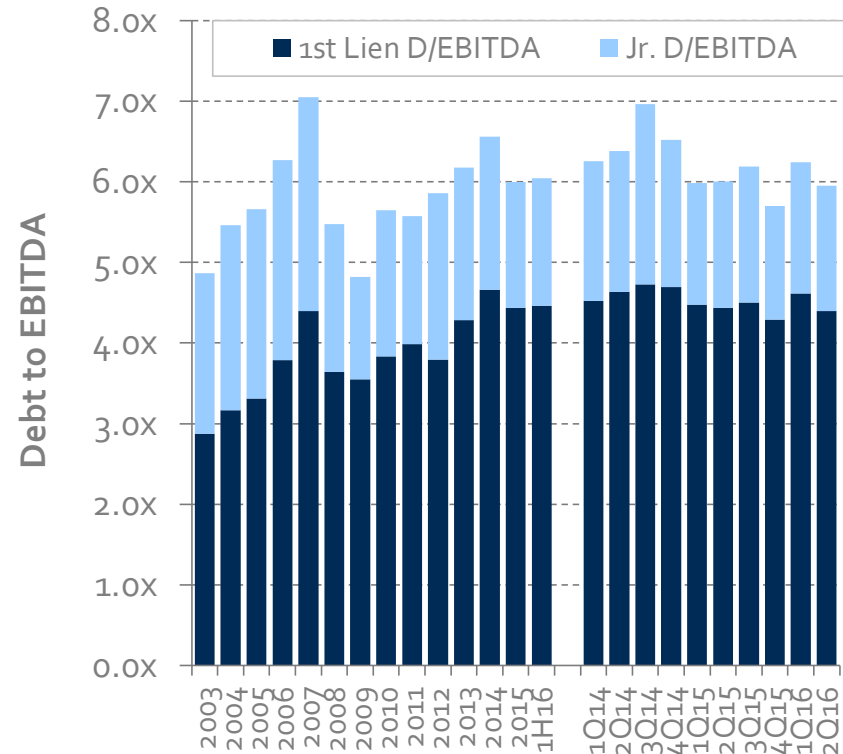
- Downward flex activity dominated in the second quarter, outpacing upward flexes by a ratio of 5:1.
- The average downward flex in June was 45 bps compared to 62 bps for the average upward flex.

# LBO DEBT TO EBITDA LEVELS

BROADLY SYNDICATED VS. INST. MIDDLE MARKET



BROADLY SYNDICATED LBOs

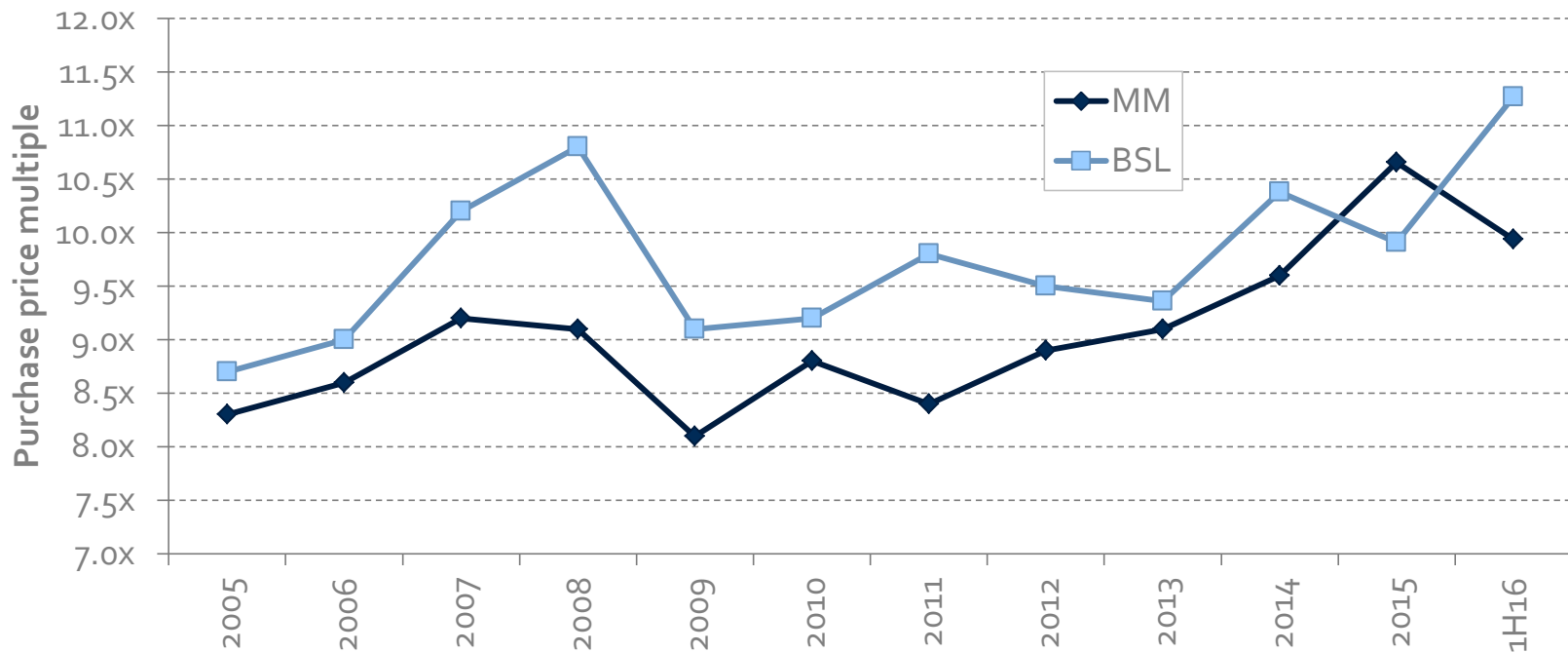


- First half 2016 average debt to EBITDA levels ticked up to 6.04 times for broadly syndicated LBO transactions, and fell to 5.1 times for institutional middle market LBOs.
- On a quarterly basis, large corporate LBO leverage trended lower in 2Q16, averaging 5.95 times.

# LBO PURCHASE PRICE MULTIPLES

## BROADLY SYNDICATED VS. INSTITUTIONAL MIDDLE MARKET

LBO PURCHASE PRICE MULTIPLES

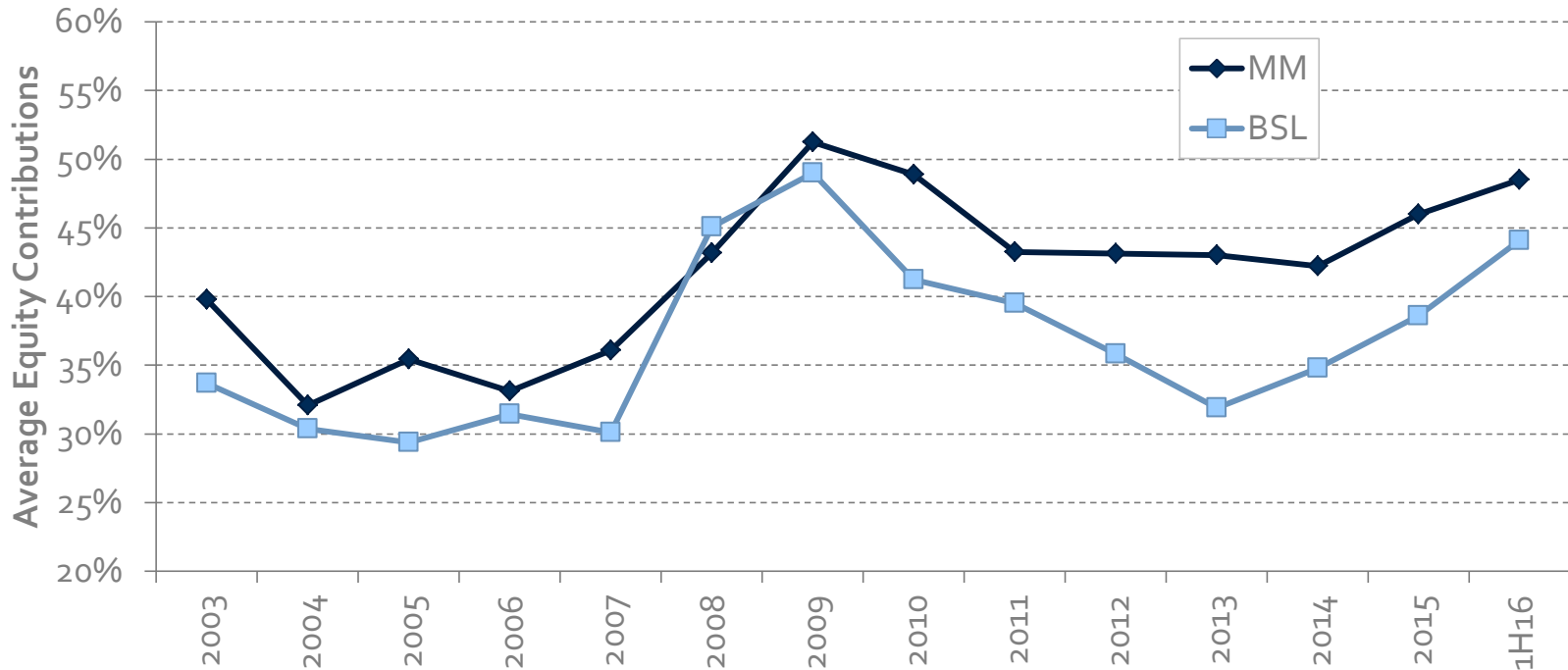


- Average purchase price multiples increased to 11.3 times for broadly syndicated LBOs in 1H16.
- In comparison, institutional middle market deals went for lower multiples in the first half of the year, averaging 9.9 times.



# LBO EQUITY CONTRIBUTIONS: BROADLY SYNDICATED VS. INSTITUTIONAL MIDDLE MARKET

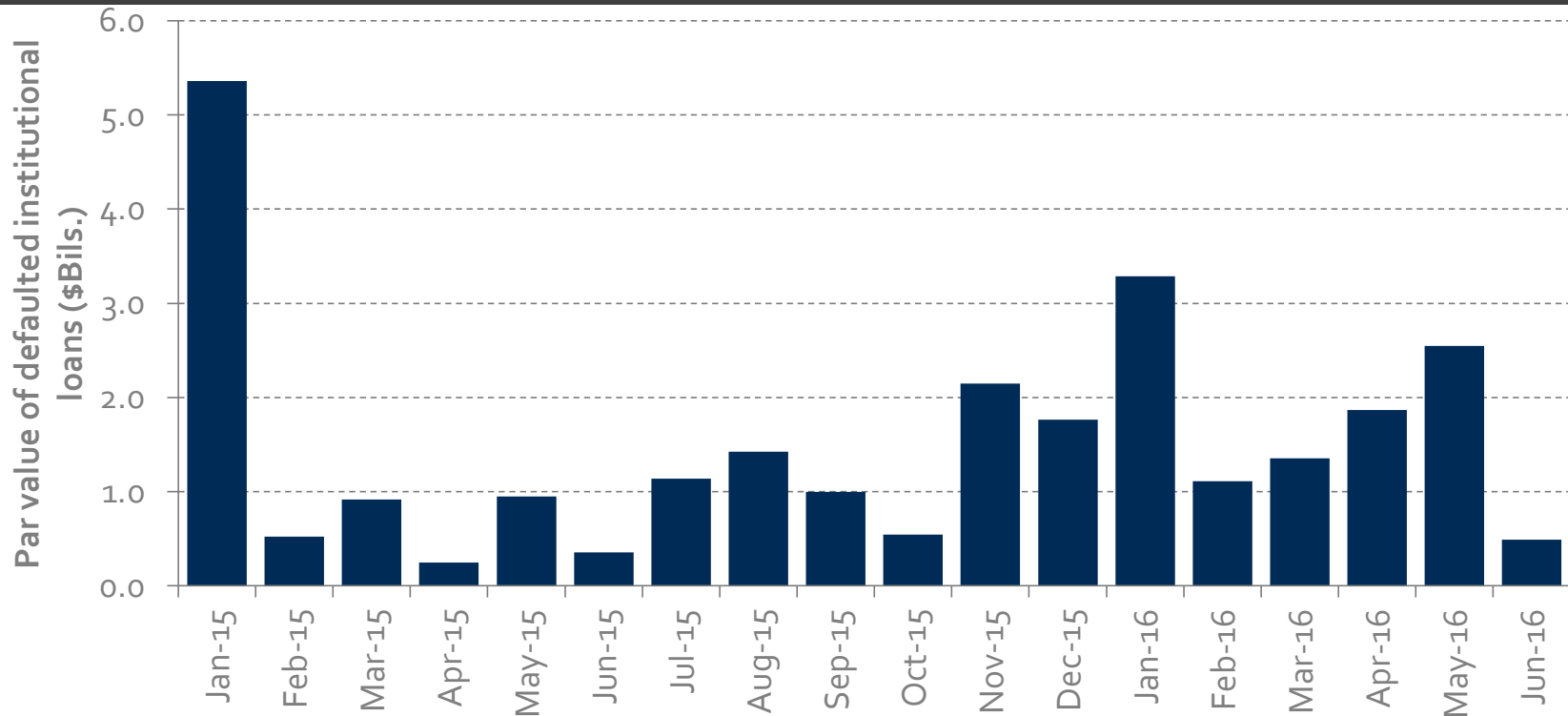
LBO EQUITY CONTRIBUTIONS



- The average equity contribution increased to 44% (from 39%) for broadly syndicated LBOs, and 49% (from 46%) for institutional middle market LBOs.

# INSTITUTIONAL LEVERAGED LOAN DEFAULTS

## INSTITUTIONAL LEVERAGED LOAN DEFAULTS



- Seventy Seven Operating LLC defaulted in June with institutional debt amounting to \$492 million. This brought year to date institutional loan default volume to \$10.7 billion.
- Much of the risk has been concentrated in specific sectors, with the troubled metals & mining (\$5.8 billion) and energy (\$4.7 billion) industries accounting for the largest share of institutional loan defaults in the last year.





# INSTITUTIONAL LEVERAGED LOAN DEFAULTS ON TTM BASIS

Month	Issuer	Par Value (\$ Mil.)	Default Date	Default Source	Industry
July 2015	Walter Energy Inc.	978.2	07/15/15	Chapter 11 Filing	Metals & Mining
	Core Entertainment Inc.	160.0	07/15/15	Missed Payment	Broadcasting & Media
	<b>Subtotal</b>	<b>1,138.2</b>			
August 2015	Alpha Natural Resources Inc.	610.9	08/03/15	Chapter 11 Filing	Metals & Mining
	American Seafoods Group LLC	281.5	08/20/15	Distressed Exchange	Services & Miscellaneous
	Wilton Holdings Inc.	283.4	08/24/15	Distressed Exchange	Services & Miscellaneous
	NYDJ Apparel LLC	50.0	08/25/15	Distressed Exchange	Retail
	Univita Health Inc.	200.0	08/28/15	Chapter 7 Filing	Healthcare & Pharmaceuticals
	<b>Subtotal</b>	<b>1,425.8</b>			
September 2015	Samson Resources Co.	1,000.0	09/16/15	Chapter 11 Filing	Energy
	<b>Subtotal</b>	<b>1,000.0</b>			
October 2015	Miller Energy Resources Inc.	175.0	10/01/15	Chapter 11 Filing	Energy
	Elo Touch Solutions Inc.	15.0	10/09/15	Distressed Exchange	Computers & Electronics
	MMM Holdings Inc.	352.0	10/30/15	Missed Payment	Healthcare & Pharmaceuticals
	<b>Subtotal</b>	<b>542.0</b>			
November 2015	Essar Steel Algoma Inc.	375.0	11/09/15	Chapter 15 Filing	Metals & Mining
	Millennium Health LLC	1,775.0	11/10/15	Chapter 11 Filing	Healthcare & Pharmaceuticals
	<b>Subtotal</b>	<b>2,150.0</b>			
December 2015	Vantage Drilling Co.	664.8	12/03/15	Chapter 11 Filing	Energy
	Energy & Exploration Partners Inc.	765.3	12/07/15	Chapter 11 Filing	Energy
	Magnum Hunter Resources Corp.	336.6	12/15/15	Chapter 11 Filing	Energy
	<b>Subtotal</b>	<b>1,766.7</b>			
January 2016	Arch Coal Inc.	1,879.3	01/11/16	Chapter 11 Filing	Metals & Mining
	NewPage Corp.	731.3	01/26/16	Chapter 11 Filing	Paper & Containers
	RCS Capital Corp.	674.7	01/31/16	Chapter 11 Filing	Banking & Finance
	<b>Subtotal</b>	<b>3,285.2</b>			



Source: Fitch U.S. Leveraged Loan Default Index.  
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# INSTITUTIONAL LEVERAGED LOAN DEFAULTS ON TTM BASIS

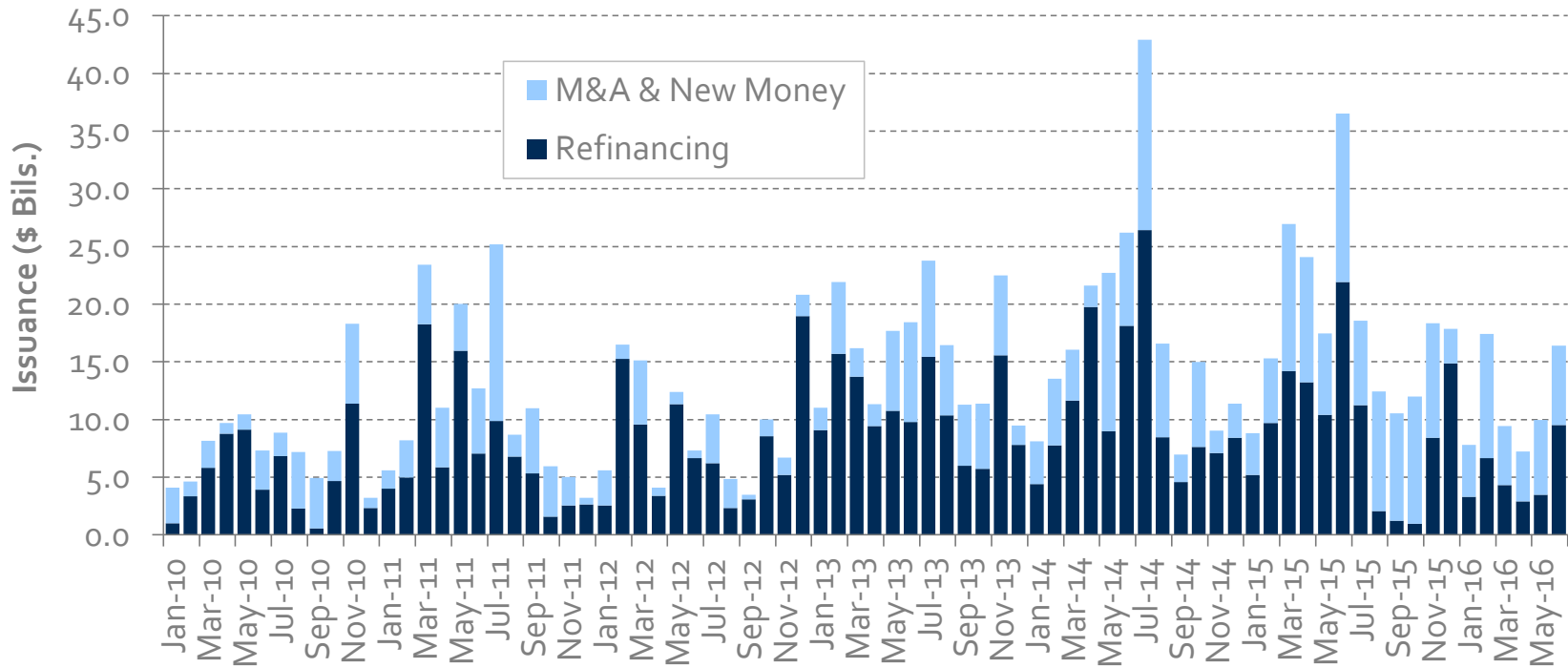
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Month	Issuer	Par Value (\$ Mil.)	Default Date	Default Source	Industry
February 2016	Noranda Aluminum Holding Corp.	467.3	02/08/16	Chapter 11 Filing	Metals & Mining
	Paragon Offshore	641.9	02/14/16	Chapter 11 Filing	Energy
	<b>Subtotal</b>	<b>1,109.2</b>			
March 2016	Sports Authority Inc.	300.0	03/02/16	Chapter 11 Filing	Retail
	Town Sports International Holdings Inc.	29.8	03/07/16	Distressed Exchange	Leisure & Entertainment
	Aspect Software Inc.	447.3	03/09/16	Chapter 11 Filing	Computers & Electronics
	Southcross Holdings LP	575.0	03/28/16	Chapter 11 Filing	Energy
	<b>Subtotal</b>	<b>1,352.1</b>			
April 2016	Vertellus Specialties Inc.	455.0	04/12/16	Missed Payment	Chemicals
	Peabody Energy Corp.	1,164.9	04/13/16	Chapter 11 Filing	Metals & Mining
	Stallion Oilfield Holding Inc.	47.0	04/15/16	Distressed Exchange	Energy
	Core Entertainment Inc.	200.0	04/28/16	Chapter 11 Filing	Broadcasting & Media
	<b>Subtotal</b>	<b>1,866.9</b>			
May 2016	Fairway Group Holdings Corp.	266.8	05/02/16	Chapter 11 Filing	Supermarkets & Drug Stores
	Atlas Iron Ltd.	134.5	05/06/16	Distressed Exchange	Metals & Mining
	Dex Media Inc.	2,110.0	05/16/16	Chapter 11 Filing	Broadcasting & Media
	EP Energy LLC	38.0	05/17/16	Distressed Exchange	Energy
	Fieldwood Energy LLC	517.5	05/26/16	Distressed Exchange	Energy
	<b>Subtotal</b>	<b>2,549.3</b>			
June 2016	Seventy Seven Operating LLC	492.0	06/07/16	Chapter 11 Filing	Energy
	<b>Subtotal</b>	<b>492.0</b>			

Source: Fitch U.S. Leveraged Loan Default Index.

# EUROPEAN LEVERAGED LOAN ISSUANCE

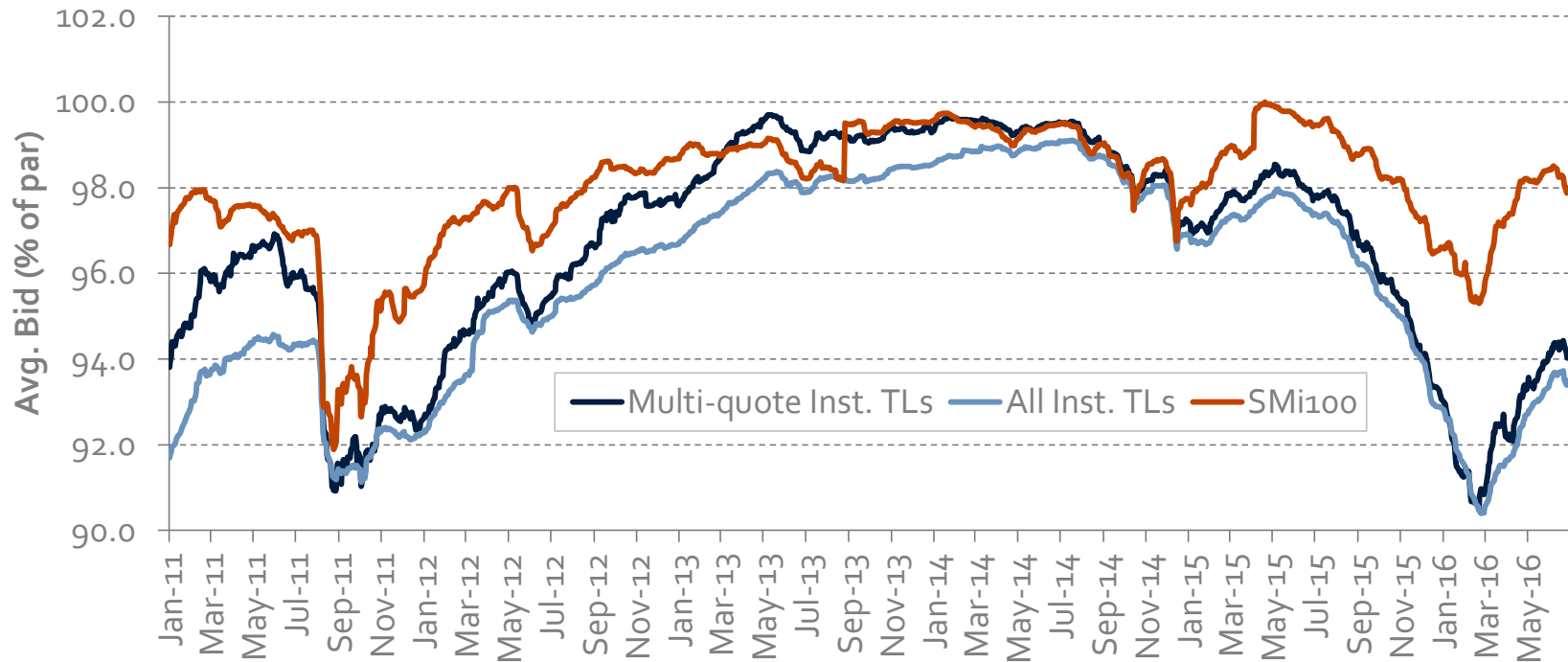
EUROPEAN LEVERAGED LOAN ISSUANCE



- European leveraged loan issuance is at \$68 billion year to date, with M&A and new money volume representing 56% of deal flow.
- Leveraged loan issuance is down 47% year over year, with refinancings off 60% and M&A/new money down 30%.

# U.S. SECONDARY MARKET BID LEVELS

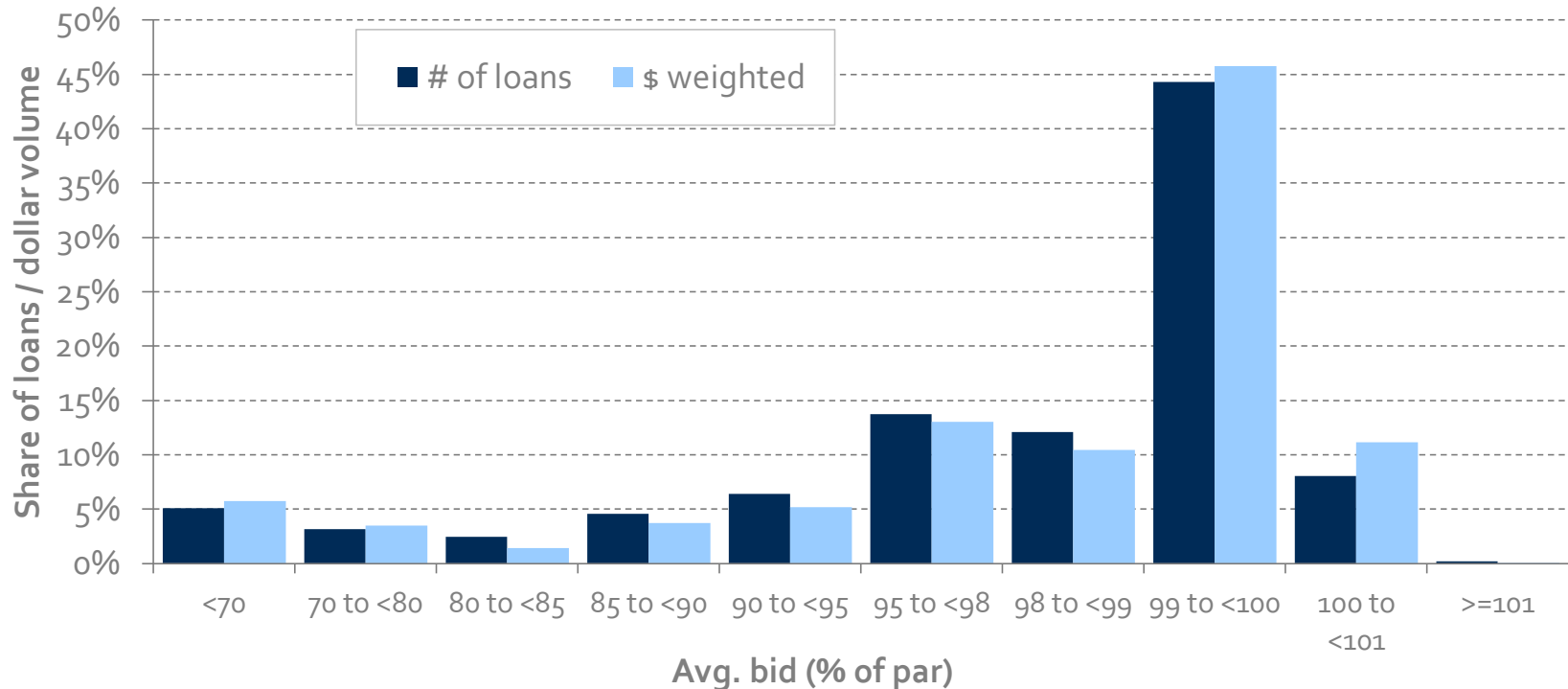
## U.S. SECONDARY MARKET AVERAGE BID



- Loan bids edged higher in June despite a late month softening following Brexit, with institutional term loans finishing the month at 94.06, up 12 bps. In contrast, the flow name SMi100 was down 41 bps to 97.99.
- Year to date, multi-quote institutional term loans are up around 100 bps.

# DISTRIBUTION OF SECONDARY MARKET BIDS

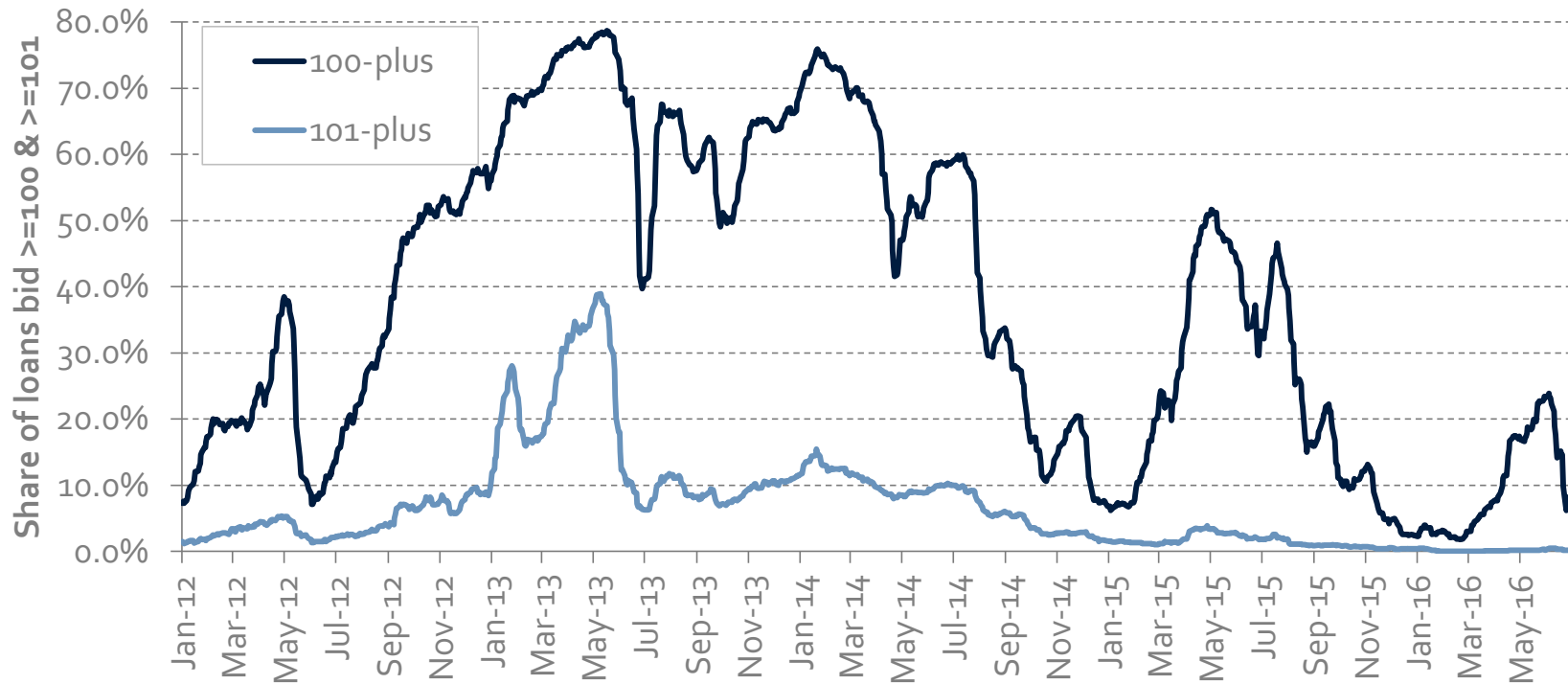
## MULTI-QUOTE INSTITUTIONAL TERM LOAN BIDS



- As of month-end June, 53% of loans are priced at 99 or above.
- At the lower end of the price spectrum, 15% of credits are bid below 90.

# PAR-PLUS & 101-PLUS MARKET SHARE

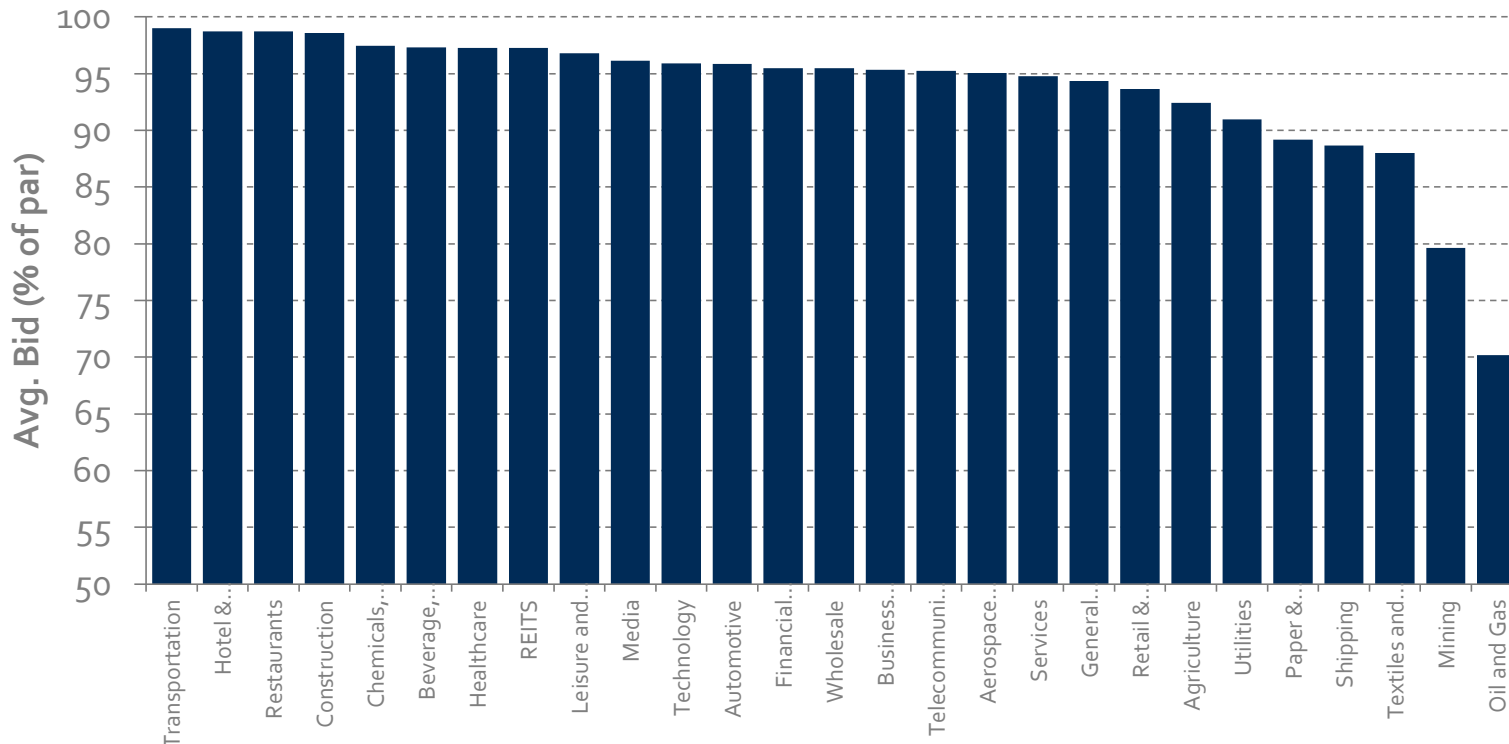
## U.S. 100-PLUS & 101-PLUS SHARE: MULTI-QUOTE INSTITUTIONAL TERM LOANS



- The par-plus share of loans fell to 8% in June, a drop of 15 percentage points from a month earlier.

## SECONDARY MARKET BIDS – BY SECTOR

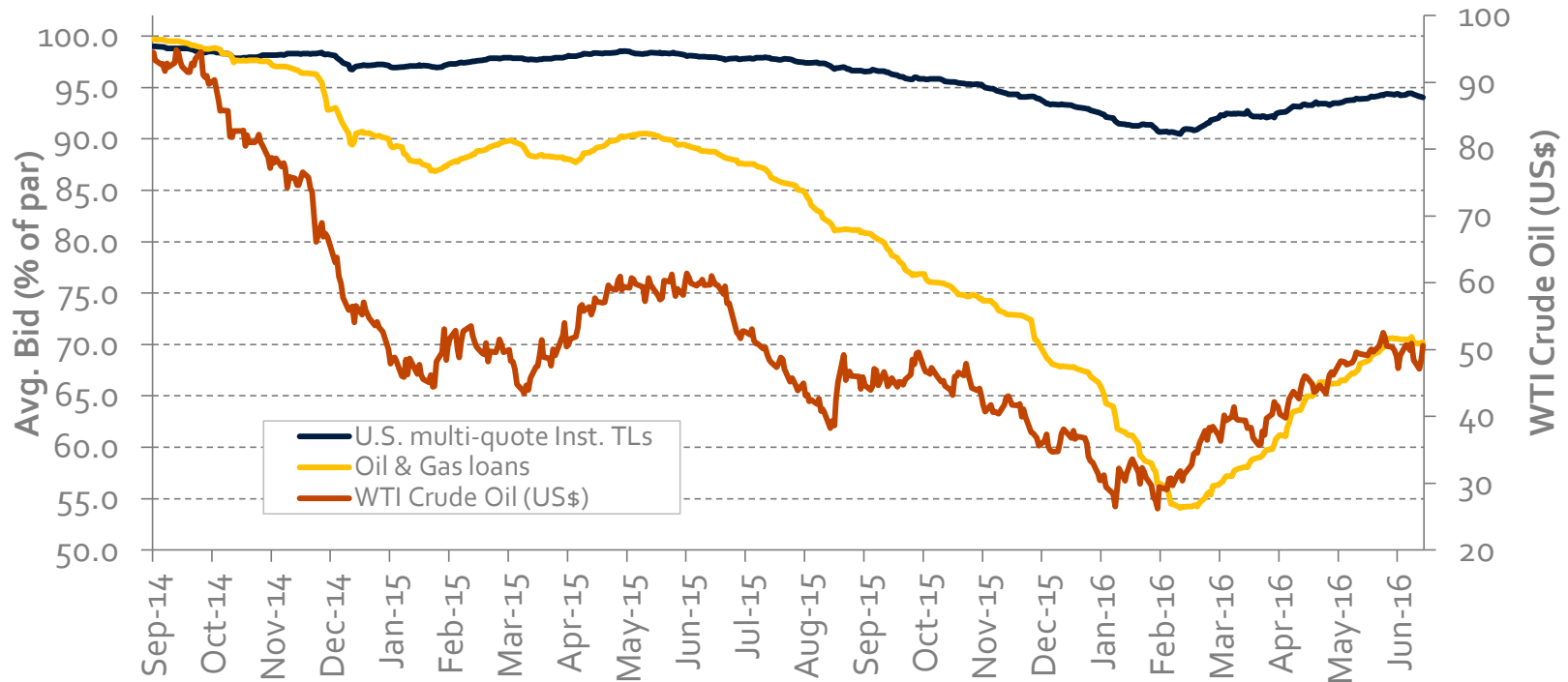
### SECONDARY MARKET BIDS – BY SECTOR



- Looking across industries, transportation (99.02), hotel & gaming(98.72), and restaurants (98.72) credits are bid highest on average, while oil & gas and mining are the lowest.

# U.S. OIL & GAS BID LEVELS

## U.S. OIL & GAS BID LEVELS

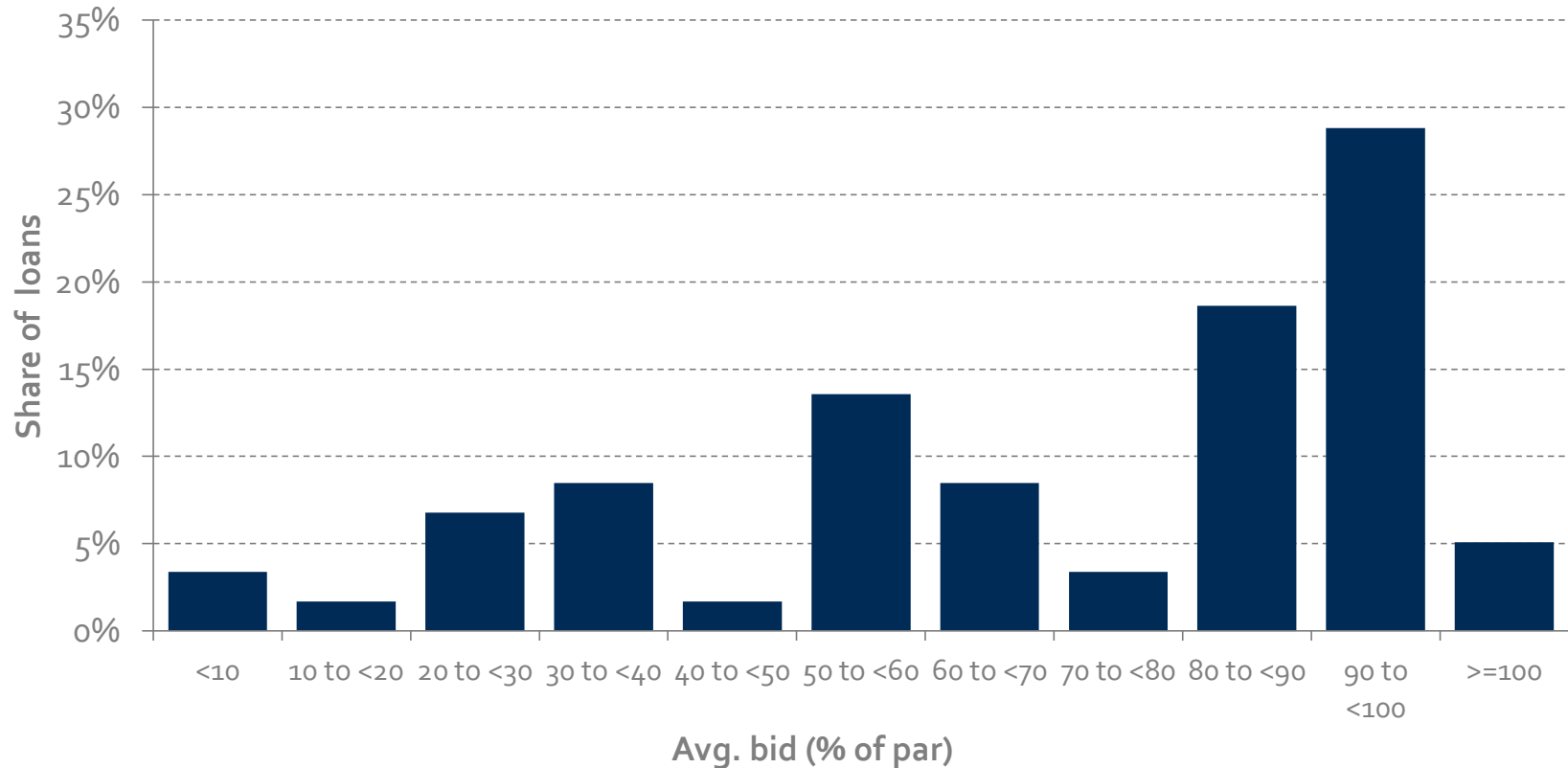


- Oil & gas loan prices climbed again in June, topping 70 cents on the dollar, a gain of 178 bps.



# DISTRIBUTION OF OIL & GAS SECONDARY MARKET BIDS

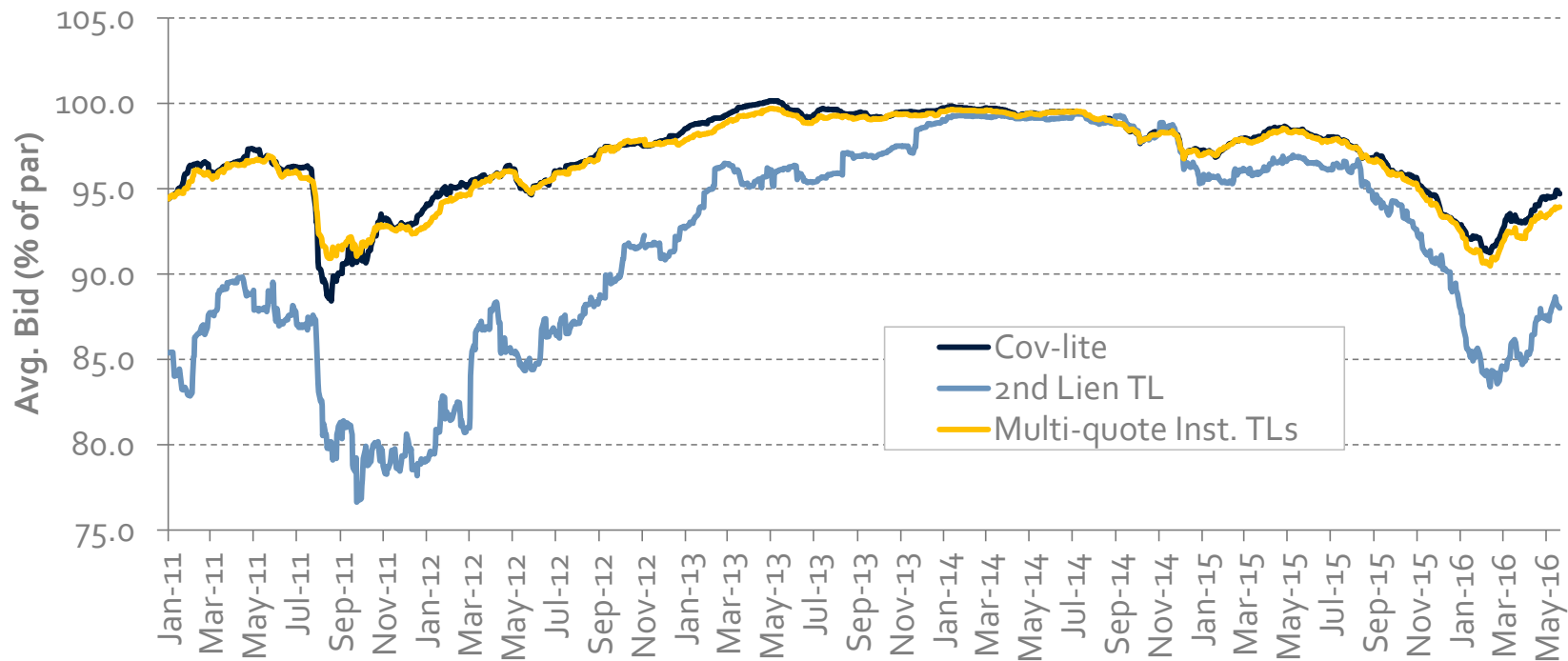
## DISTRIBUTION OF OIL & GAS INSTITUTIONAL TERM LOAN BIDS



- The share of oil & gas loans in the 80-plus area increased to 53% in June, up 3 percentage points from a month earlier.

# SECONDARY MARKET BID LEVELS: COVENANT-LITE & SECOND-LIENS

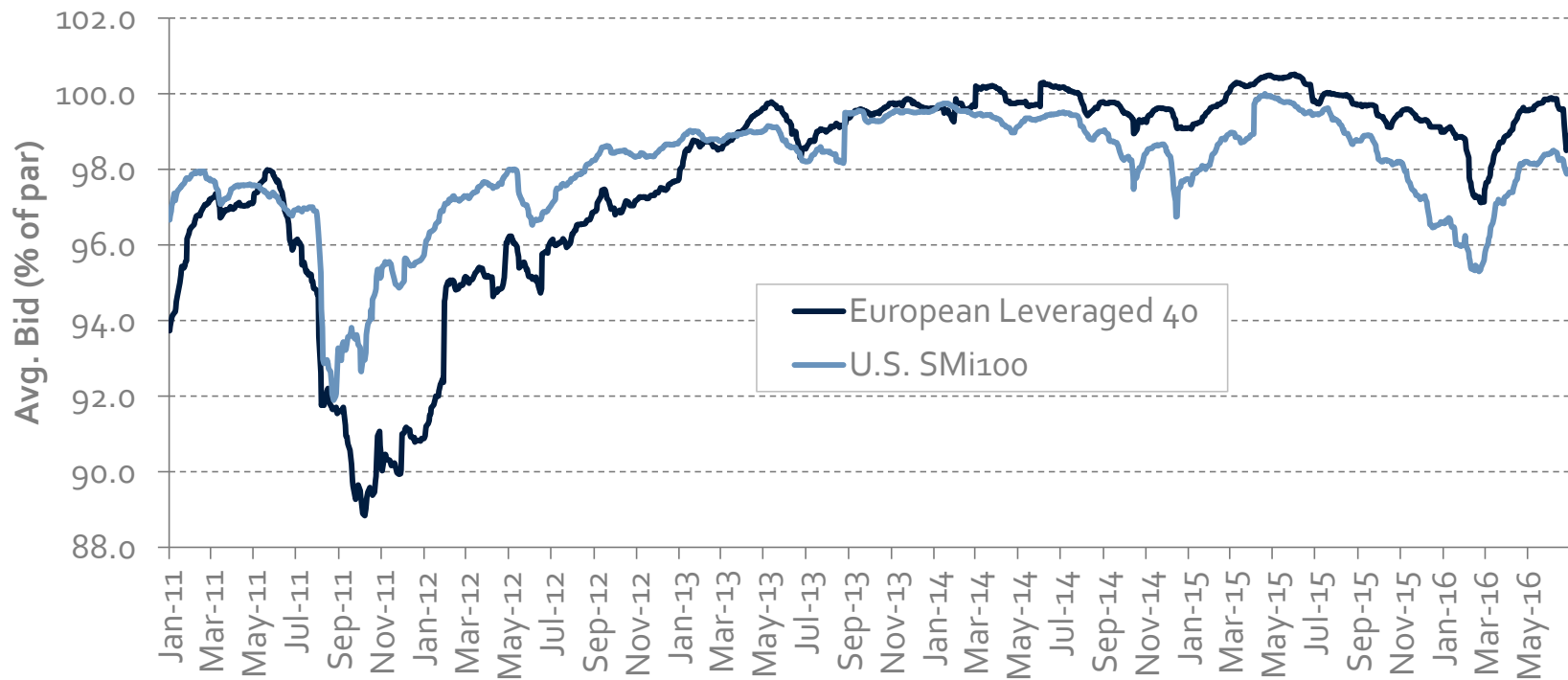
## U.S. COV-LITE AND SECOND LIEN LOAN BIDS



- Second-lien bids increased by 122 bps to 89.24 in June, and are now in positive territory this year with a gain of 28 bps.
- The average bid on covenant-lite loans slipped 15 bps in June to 94.57.

## SECONDARY MARKET BID LEVELS: EUROPE

### SECONDARY MARKET AVERAGE BIDS



- Both European and US flow loan prices softened in June, with most of the drop in European bids coming in the aftermath of the Brexit vote.
- European flow names finished down 96 bps in June and now average 98.90, while US credits declined by 41 bps to reach 97.99.



REUTERS/Petar Kujundzic

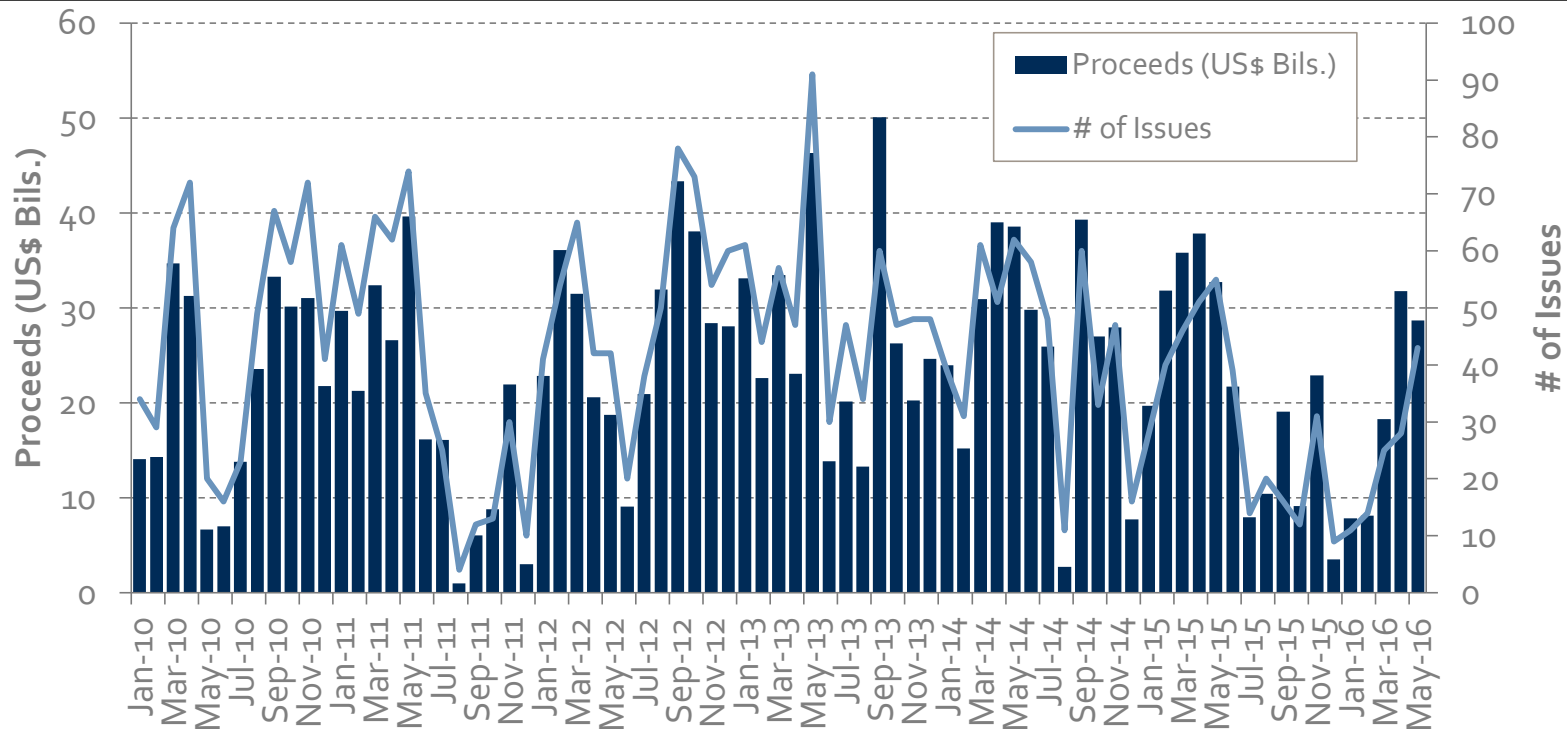
# U.S. HIGH YIELD BOND MARKET OVERVIEW



THOMSON REUTERS

# HIGH YIELD BOND ISSUANCE

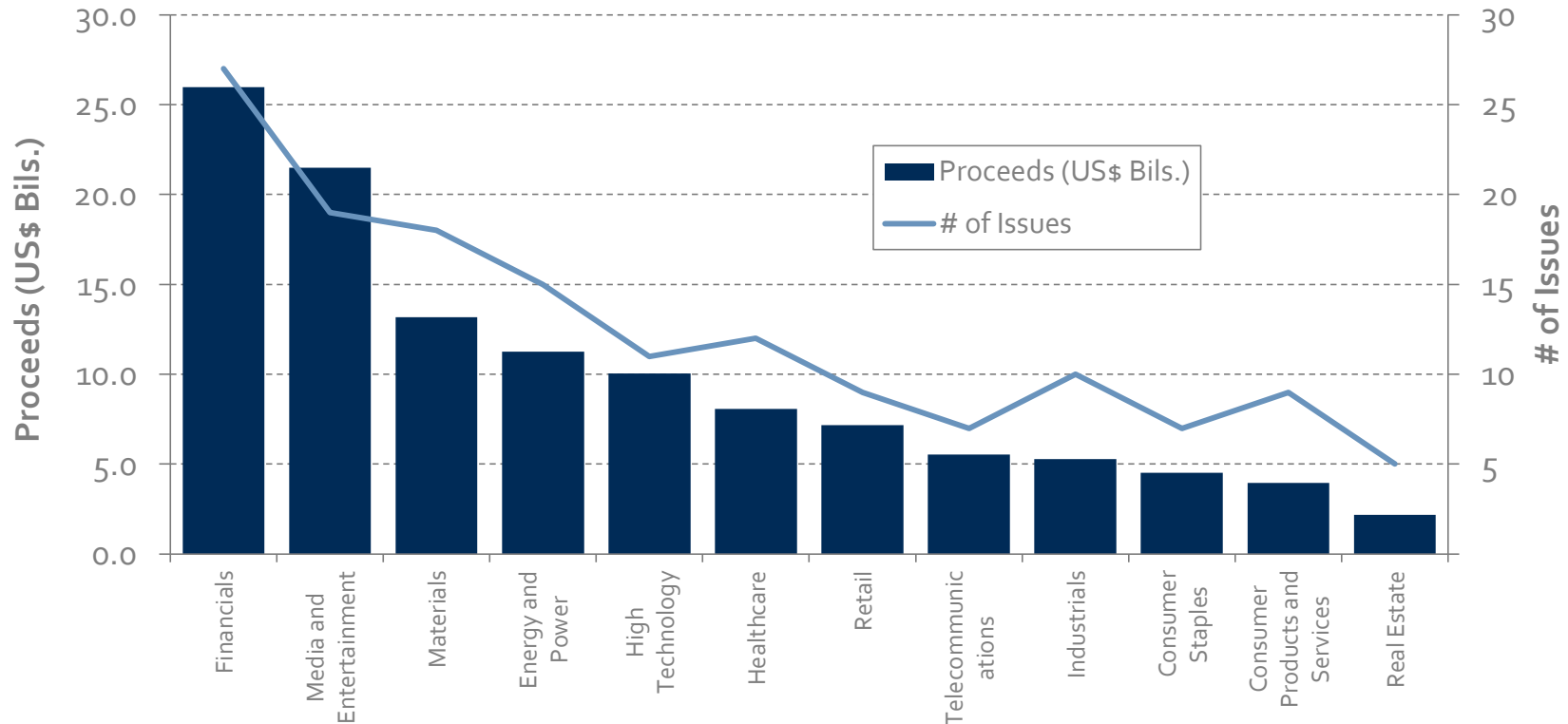
## U.S. HIGH YIELD CORPORATE BONDS



- High yield bond issuance slipped to \$24 billion in June.
- Year-to-date issuance is at \$119 billion, which is down 34% from the same period last year.

# HIGH YIELD BONDS ISSUANCE - YTD BY INDUSTRY

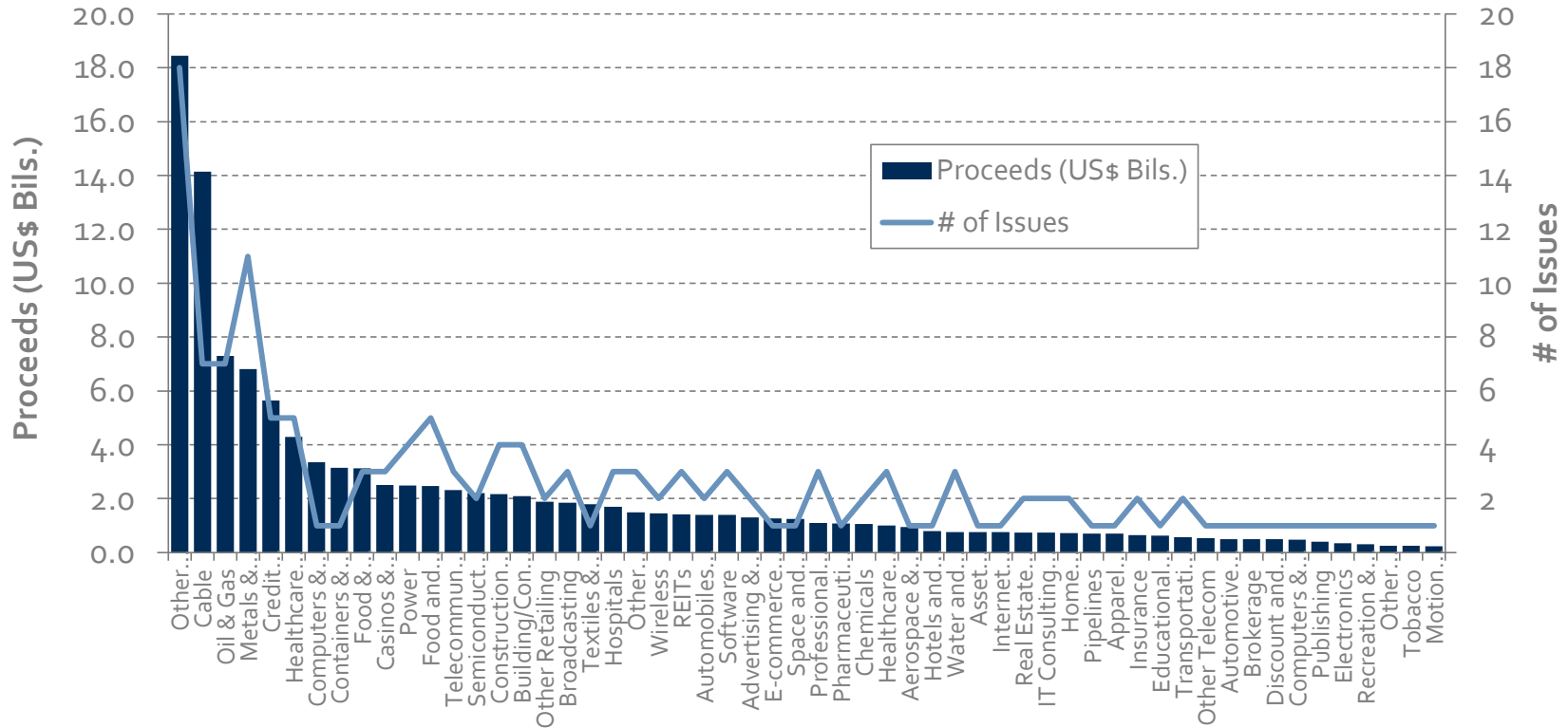
## U.S. HIGH YIELD CORPORATE BONDS



- The financials sector leads the way with \$26 billion (22%) of high yield issuance so far this year. Next is media & entertainment at \$22 billion and materials at \$13 billion.

# HIGH YIELD BONDS ISSUANCE - YTD BY SUB-INDUSTRY

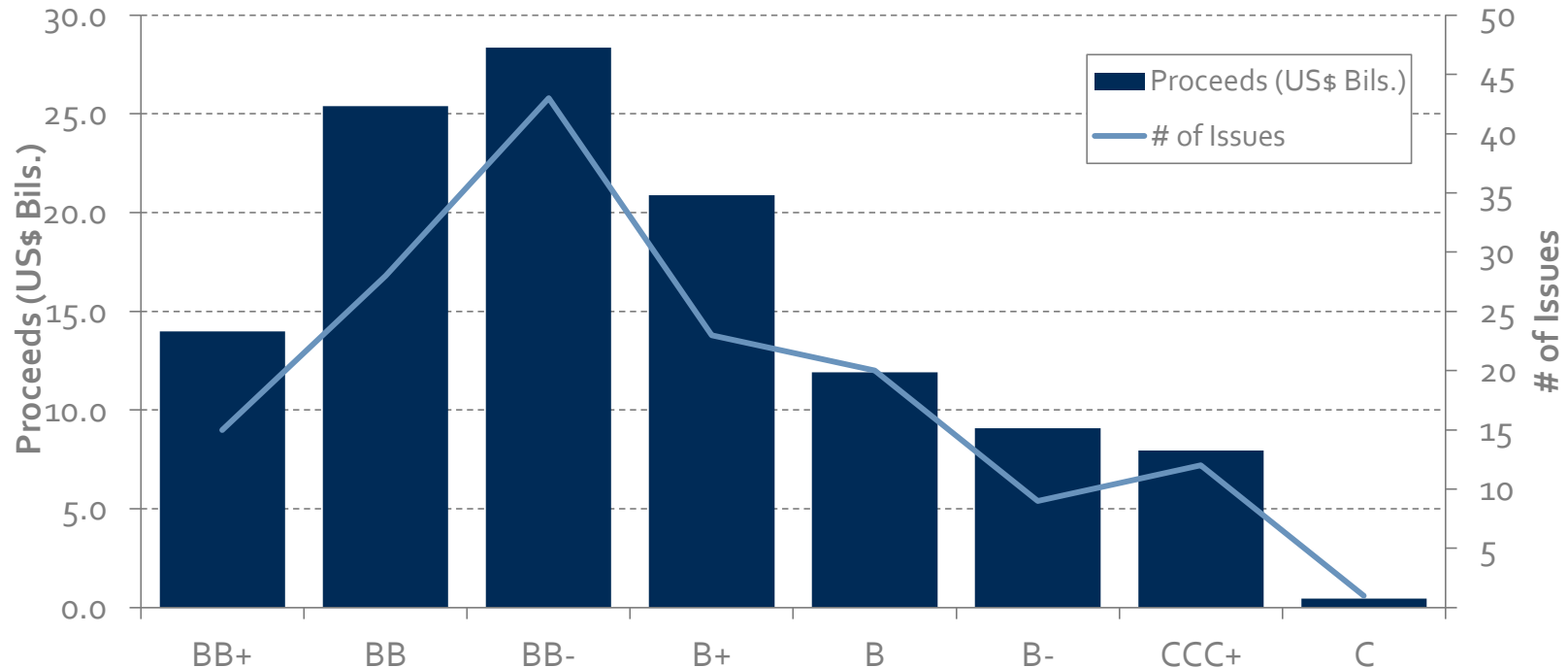
U.S. HIGH YIELD CORPORATE BONDS



- At the subsector level, other financial related companies make up the largest issuers so far this year with \$18.4 billion of issuance (16% share).
- Next are cable companies at \$14.1 billion and oil & gas at \$7.3 billion.

# HIGH YIELD BOND ISSUANCE – YTD BY RATING

## U.S. HIGH YIELD CORPORATE BONDS

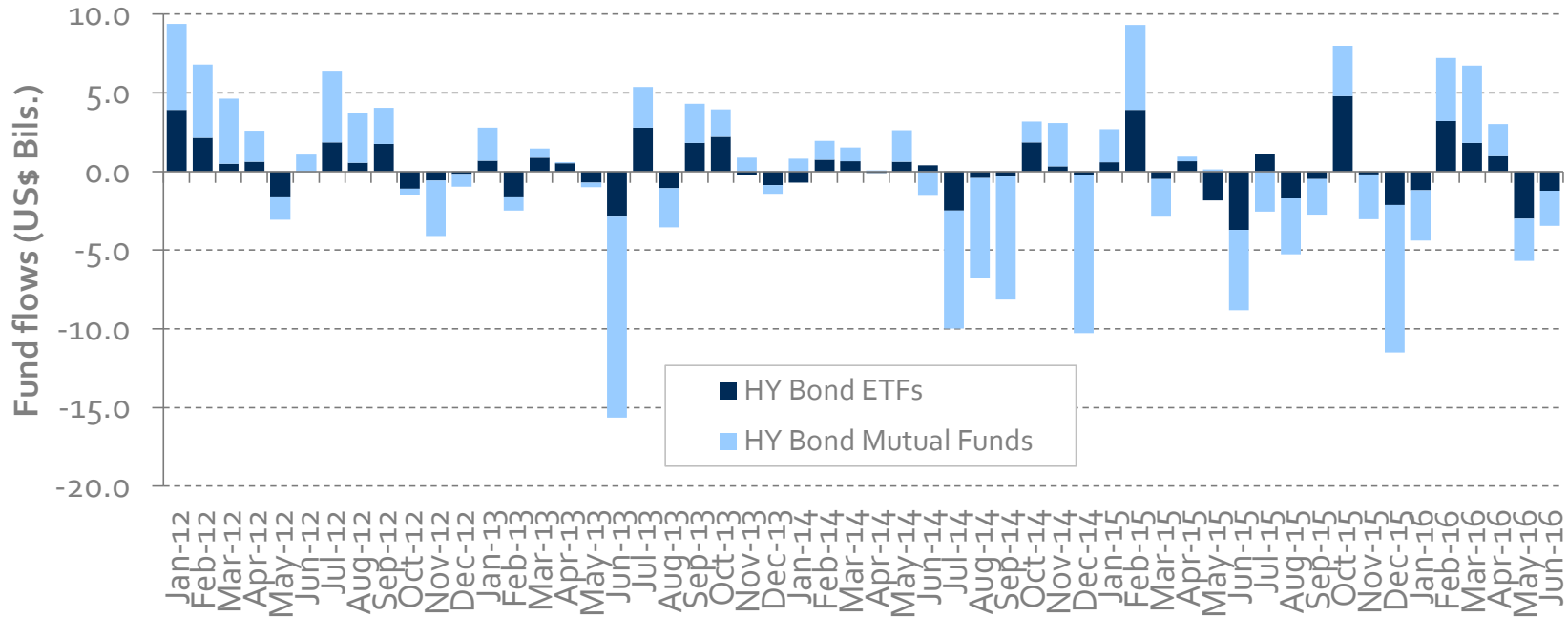


- Over (57%) of high-yield bonds issued so far this year are rated BB- or higher.



# HY BOND FUND FLOWS – MUTUAL FUND VS. ETF BREAKOUT\*

HY BOND FUND FLOWS

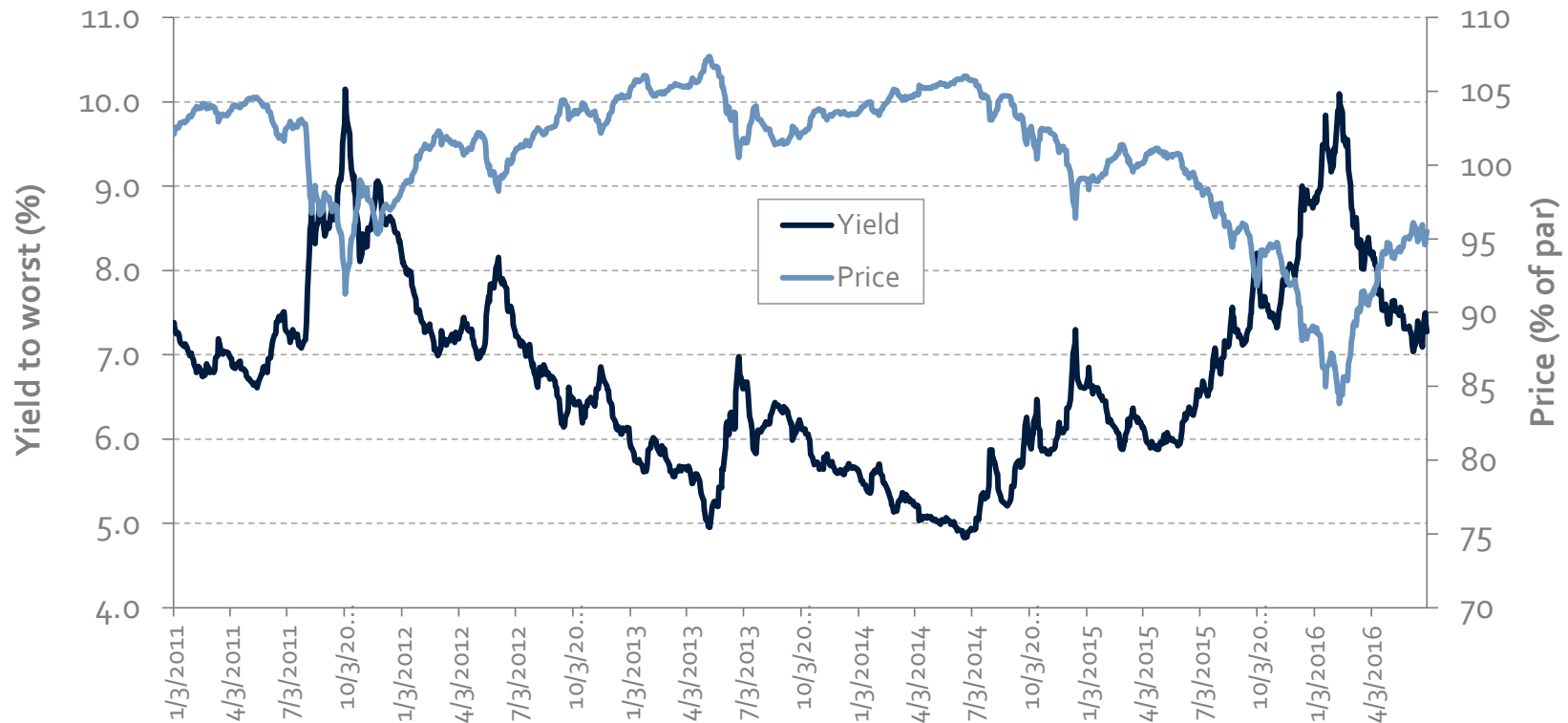


\* Based on the most recently available data and is subject to future updates.

- Based on the most recent data available, HY bond funds posted outflows of \$3.4 billion in June. Looking at it by fund type, mutual flows saw \$2.2 billion exit, while ETFs recorded an outflow of \$1.2 billion.
- Year to date, HY bond funds have added \$3.4 billion, comprised of \$2.9 billion for mutual funds and \$560 million for ETFs.

# HIGH YIELD BOND INDEX

## U.S. HIGH YIELD BOND INDEX



- HY bond yields finished June marginally tighter at 7.27%.
- Yields have come down by 147 bps since the start of the year and are 282 bps tighter than at their February high.





REUTERS/Petar Kujundzic

# INVESTOR OVERVIEW

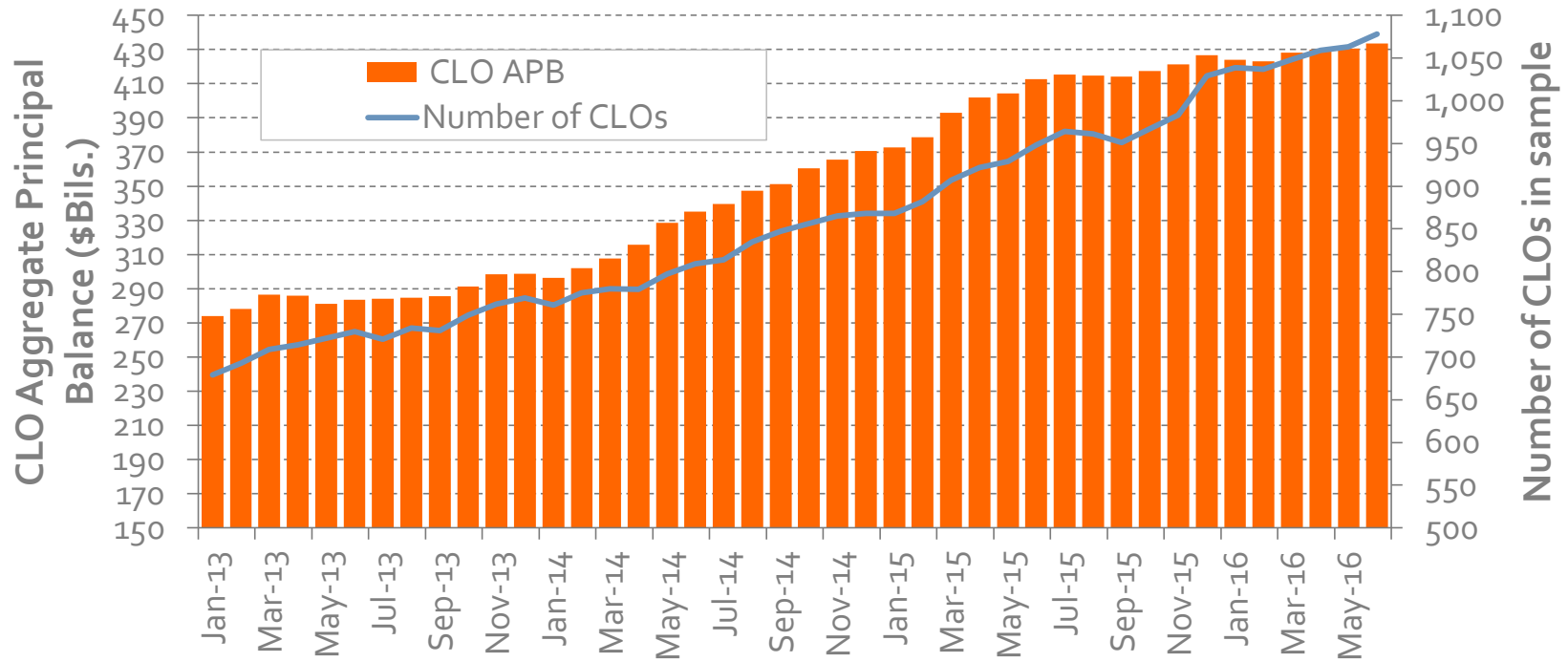
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# U.S. CLO ASSETS UNDER MANAGEMENT

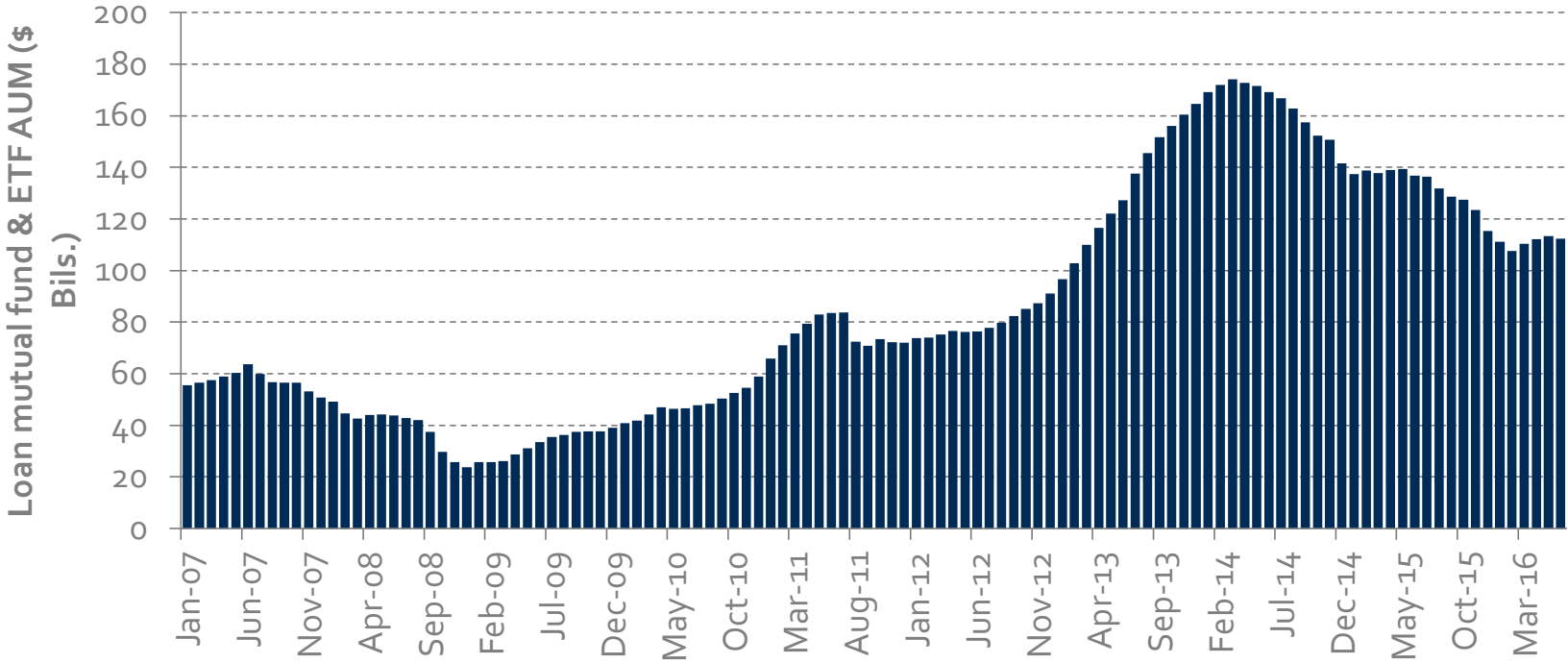
## ASSETS UNDER MANAGEMENT



- U.S. CLO assets under management increased to \$434 billion in June.

# LOAN FUNDS AUM

## U.S. LOAN MUTUAL FUND & ETF ASSETS UNDER MANAGEMENT\*

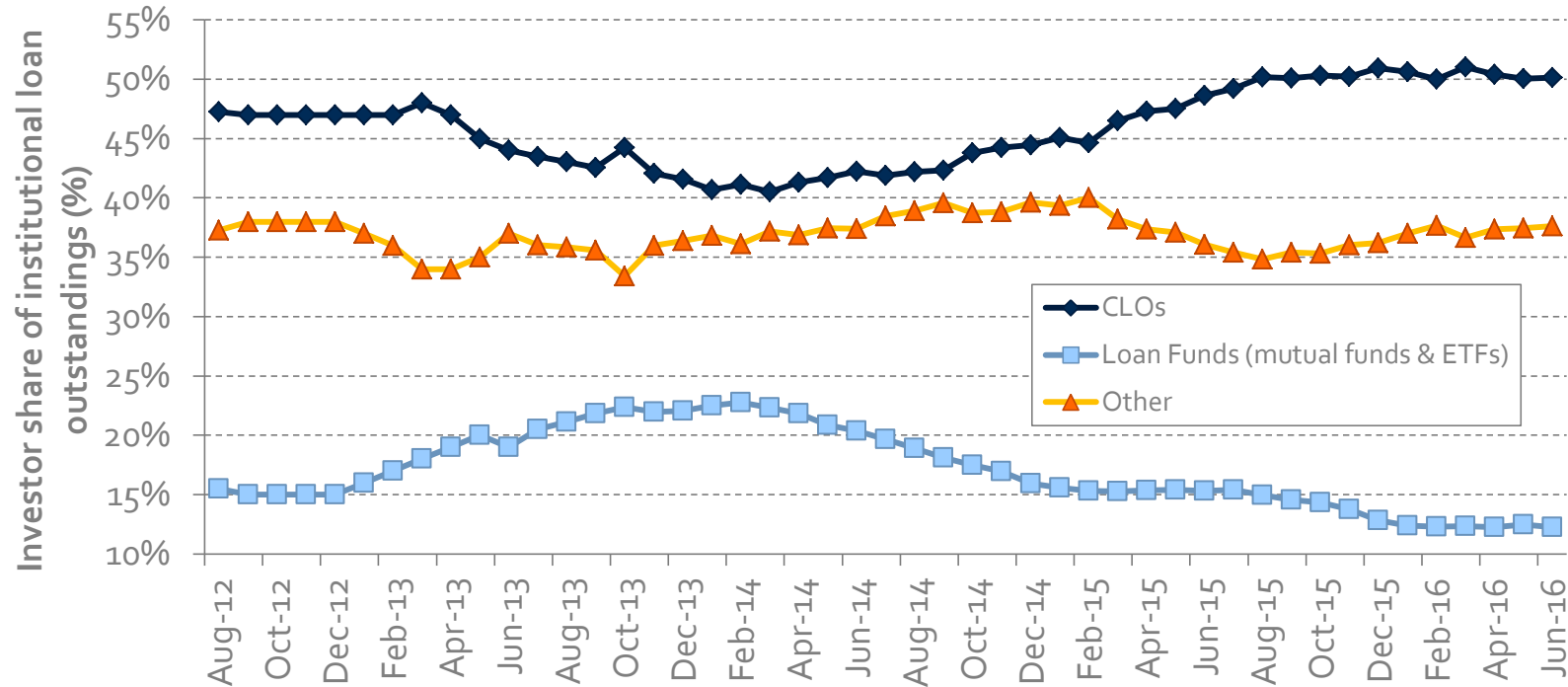


\*Based on the most recent data available

- Loan mutual fund & ETF assets under management (market value) declined by 1% in June to roughly \$112 billion.
- Year to date, AUM is down over \$3 billion.

# INVESTOR SHARE OF INSTITUTIONAL LOAN OUTSTANDINGS

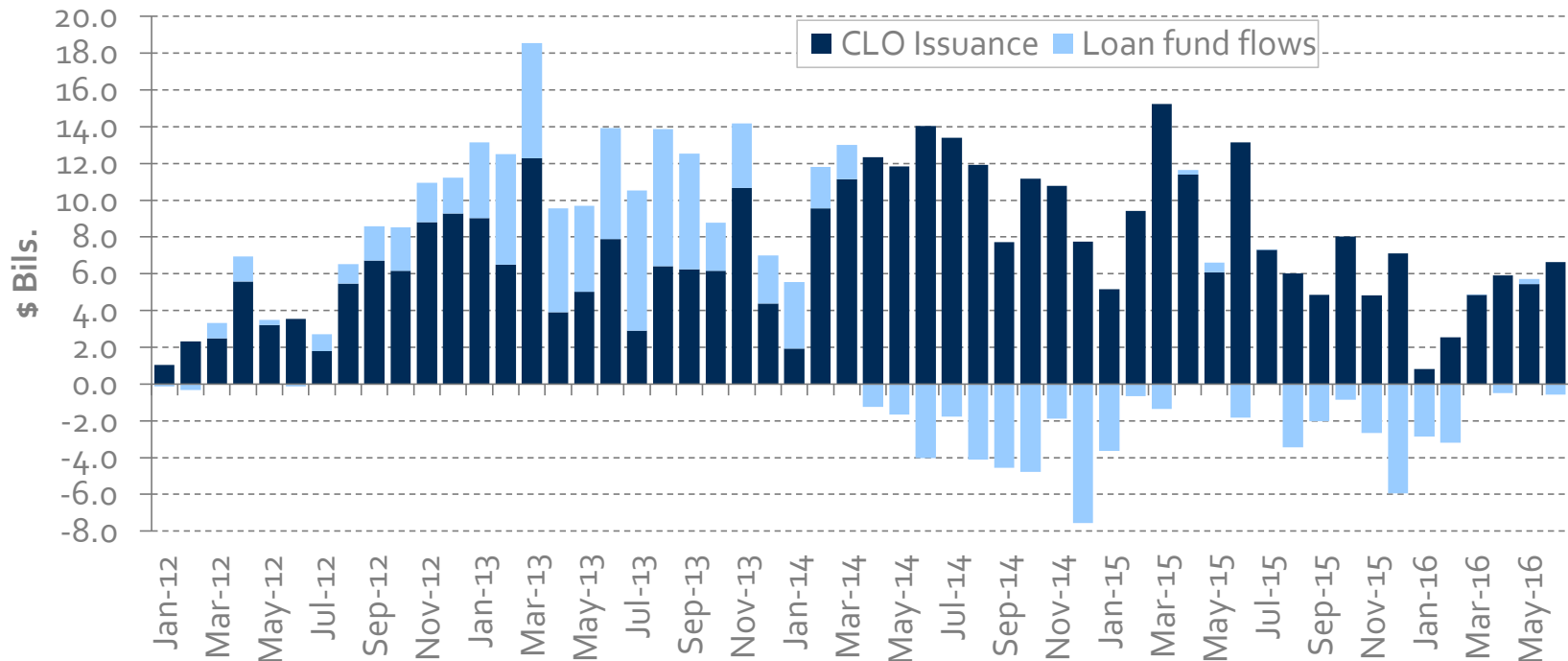
## INVESTOR SHARE OF INSTITUTIONAL LOAN OUTSTANDINGS



- The CLO share of institutional loan outstandings is at roughly 50%.
- Loan mutual funds & ETF market share is down to 12% on the back of outflows in the last two years.

# CLO ISSUANCE VS. LOAN FUND FLOWS - MONTHLY

## MONTHLY CLO ISSUANCE VS. LOAN FUND FLOWS



- U.S. CLO issuance increased to \$6.6 billion (15 deals) in June from \$5.4 billion (13 deals) in May.
- Based on the most recent data available, loan funds saw \$572 million exit in June, bringing year to date outflows to \$6.8 billion.



REUTERS/Petar Kujundzic

## CLO MARKET ANALYSIS\*

\*Based on the most recently available data in Thomson Reuters LPC Collateral

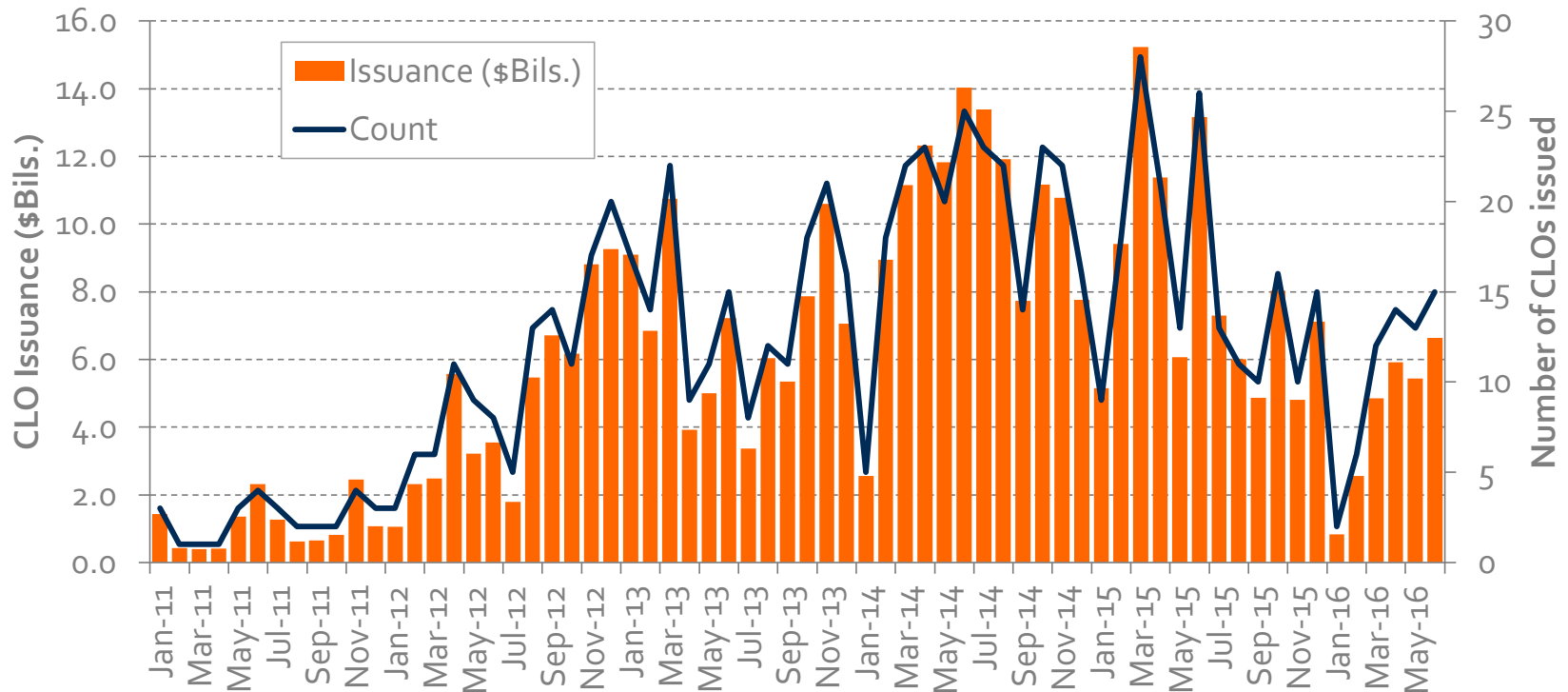


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# U.S. CLO ISSUANCE - MONTHLY

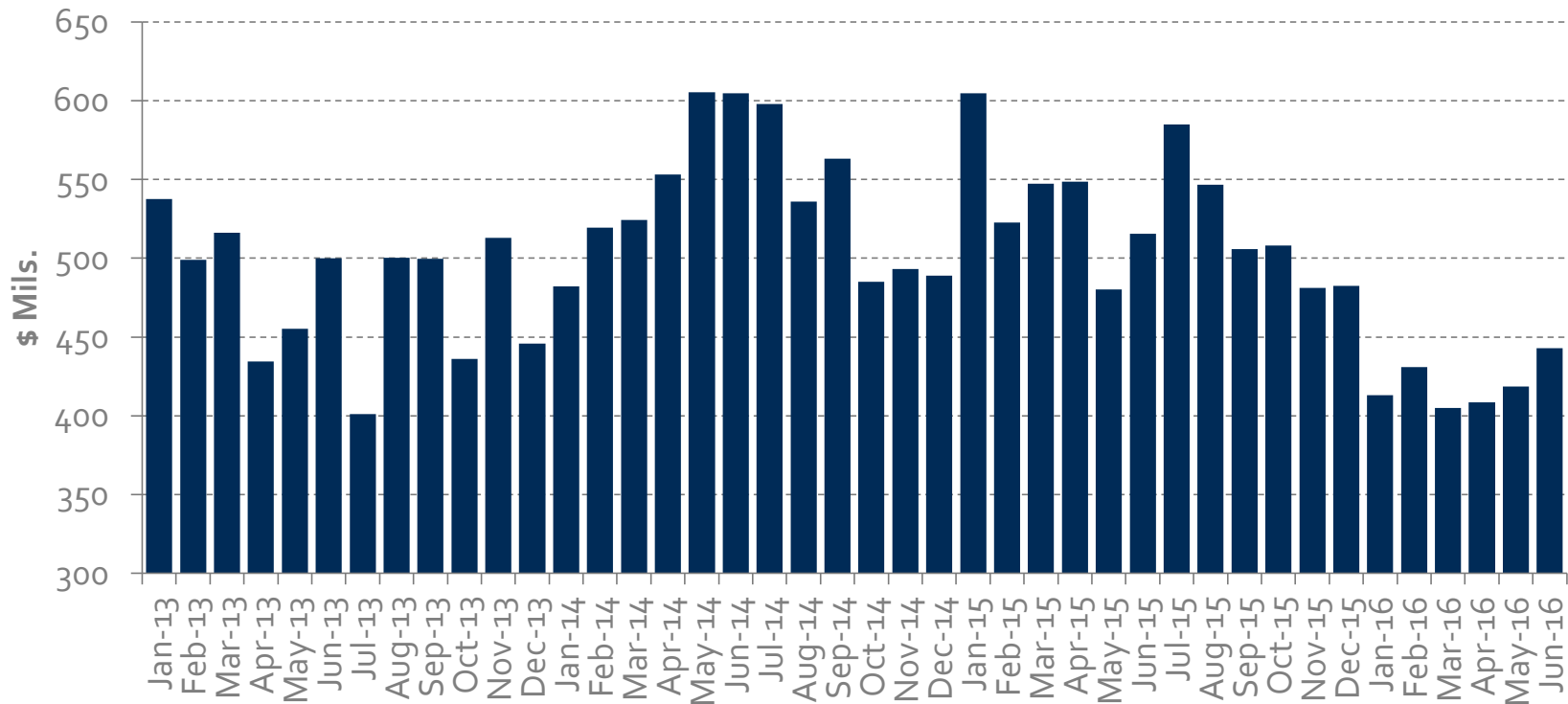
## CLO ISSUANCE



- U.S. CLO issuance increased to \$6.6 billion (15 deals) in June from \$5.4 billion (13 deals) in May.
- This brought YTD issuance to \$26.2 billion (62 deals), down sharply from \$60.4 billion (115 deals) in the same period last year.

# U.S. CLO AVERAGE SIZE

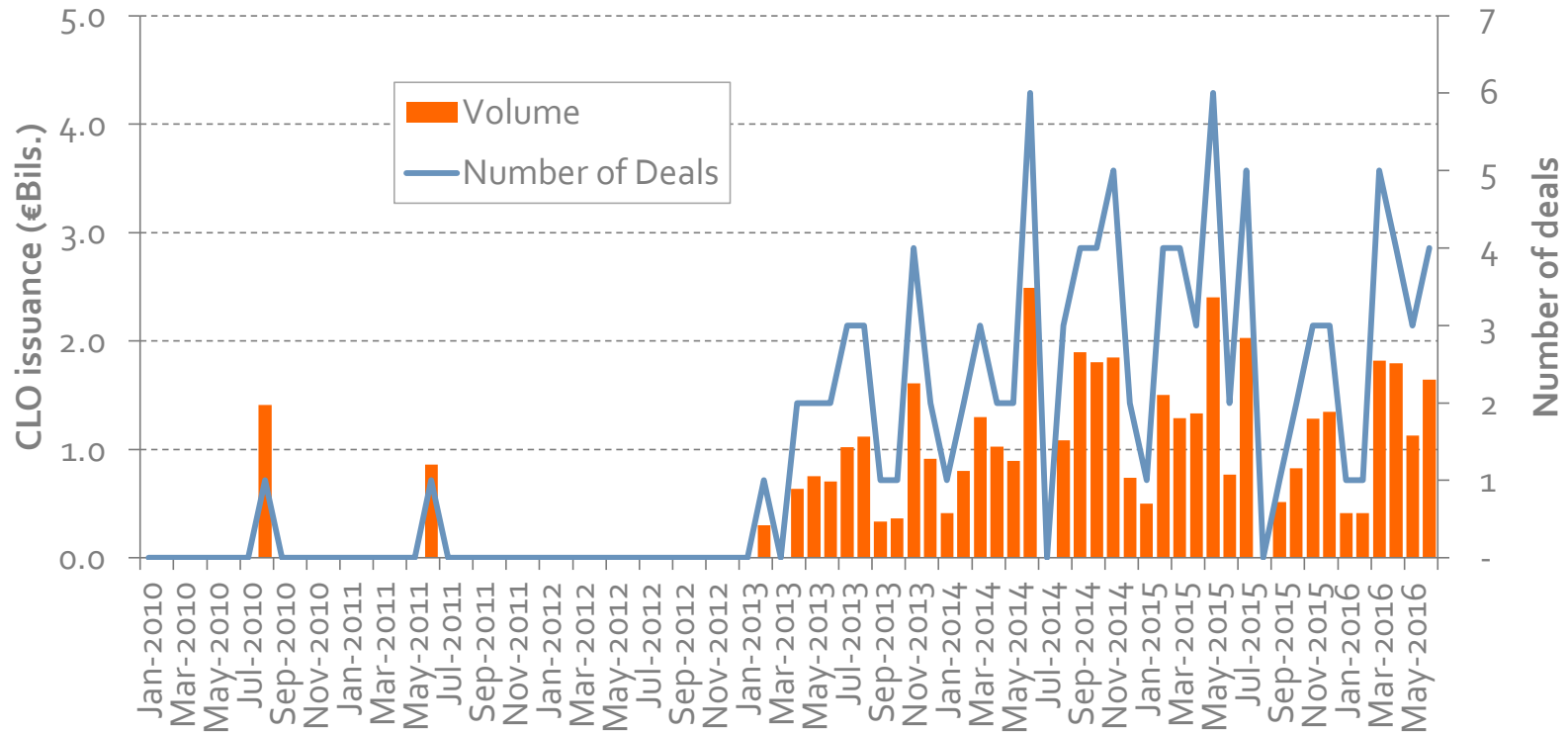
## U.S. BSL CLO AVERAGE SIZE



- The average size of the fifteen BSL CLOs issued in June increased to \$443 million, with deals ranging from \$400 million to \$650 million.
- Year to date, the average deal size is \$421 million.

# EUROPEAN CLO ISSUANCE - MONTHLY

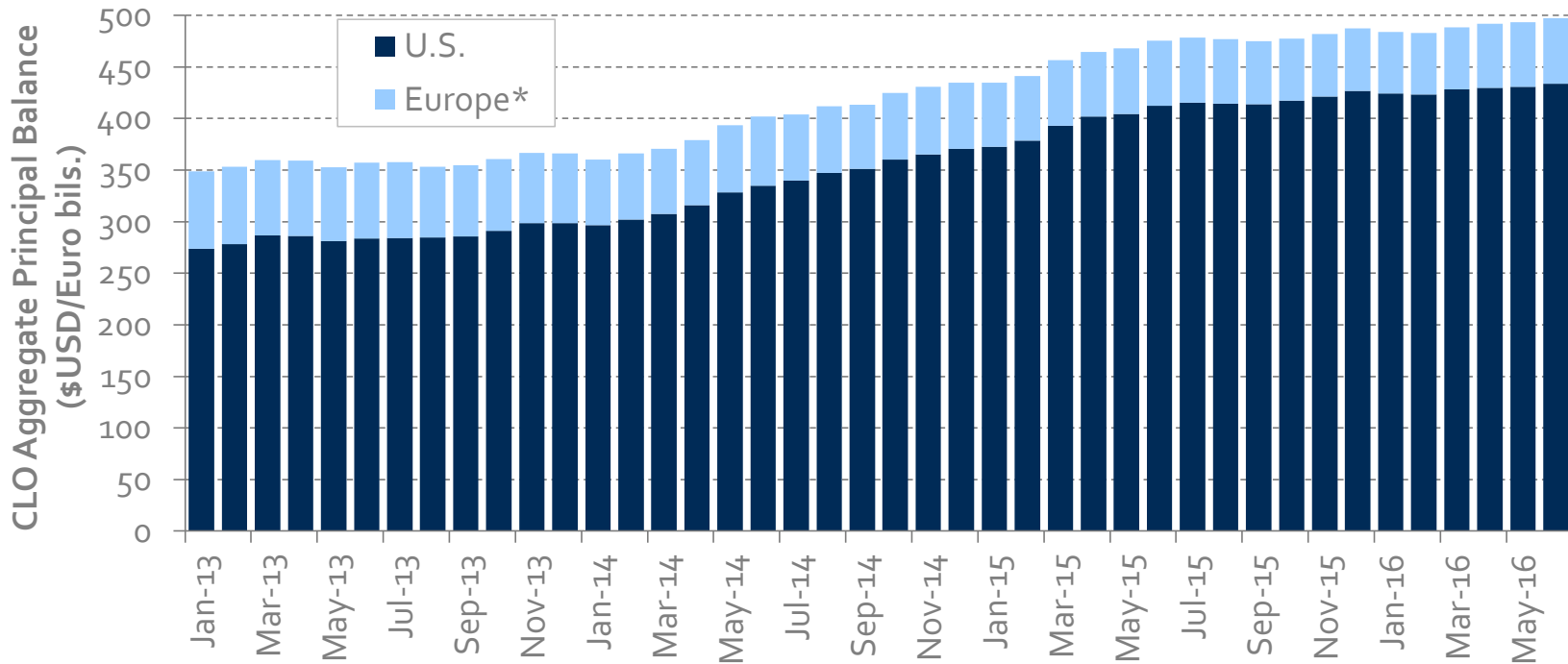
EUROPEAN CLO ISSUANCE



- The European CLO market added another €1.64 billion of issuance from four deals in June.
- Issuance through June is at €7.2 billion (18 deals), down from €7.8 billion (20 deals) in the same period last year.

# CLO ASSETS UNDER MANAGEMENT

CLO AGGREGATE PRINCIPAL BALANCE: U.S. & EUROPE

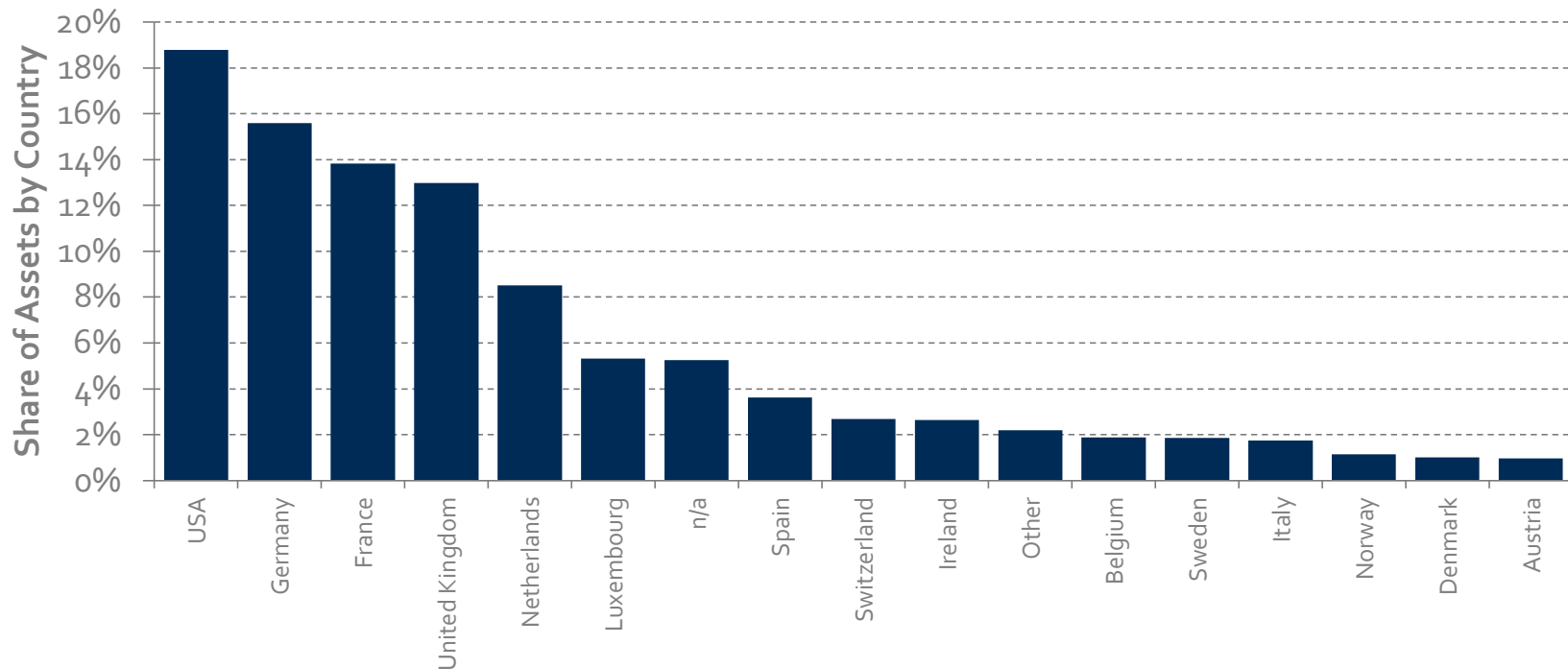


\*History revised

- Assets under management increased to \$434 billion for U.S. CLOs and €64 billion for European CLOs.

# EUROPEAN CLO 2.0s SHARE OF ASSETS BY COUNTRY

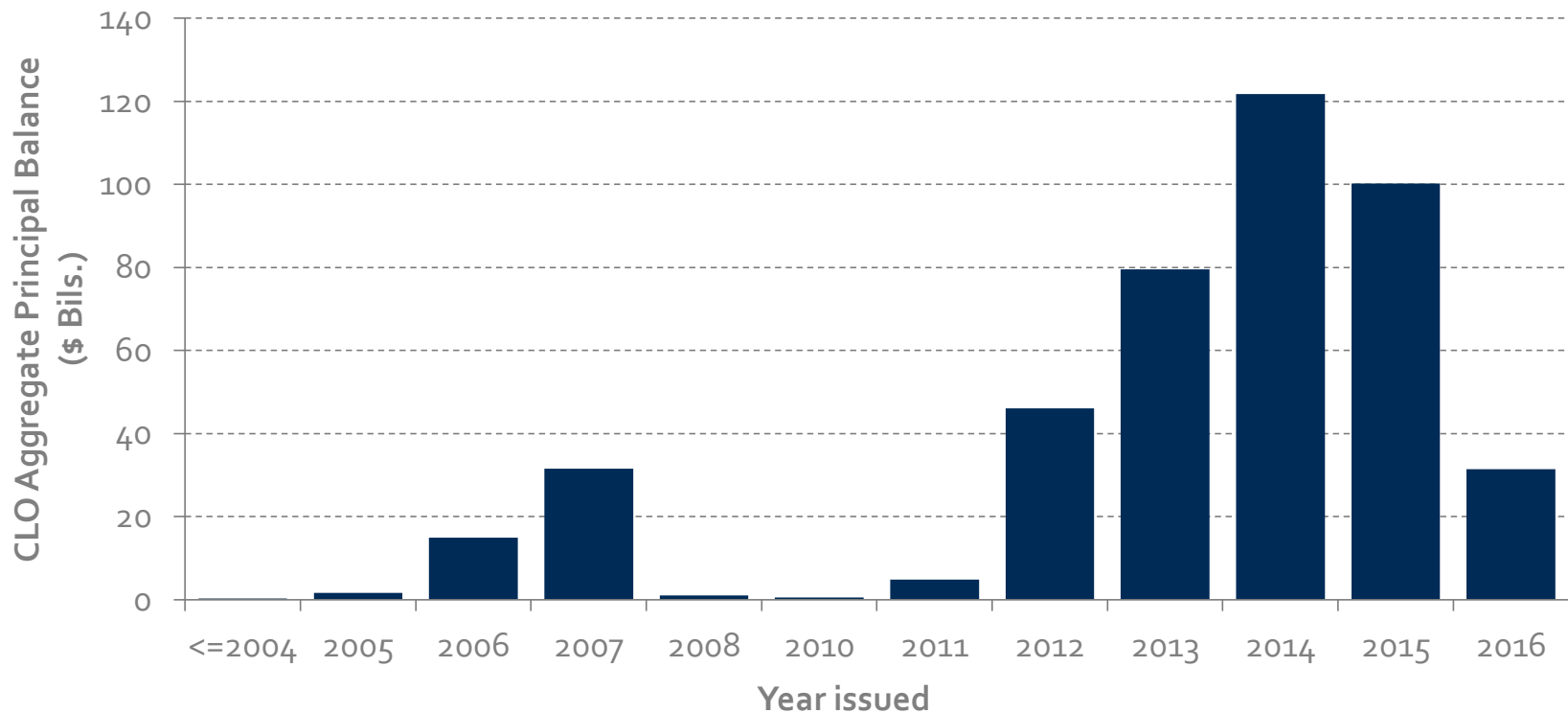
## EUROPEAN CLO 2.0s SHARE OF ASSETS BY COUNTRY



- Assets from the United States (18.8%), Germany (15.6%) and France (13.8%) are the most widely held in European CLO 2.0s.
- Next is the U.K. which accounts for 13% of assets.

# U.S. CLO AUM BY VINTAGE

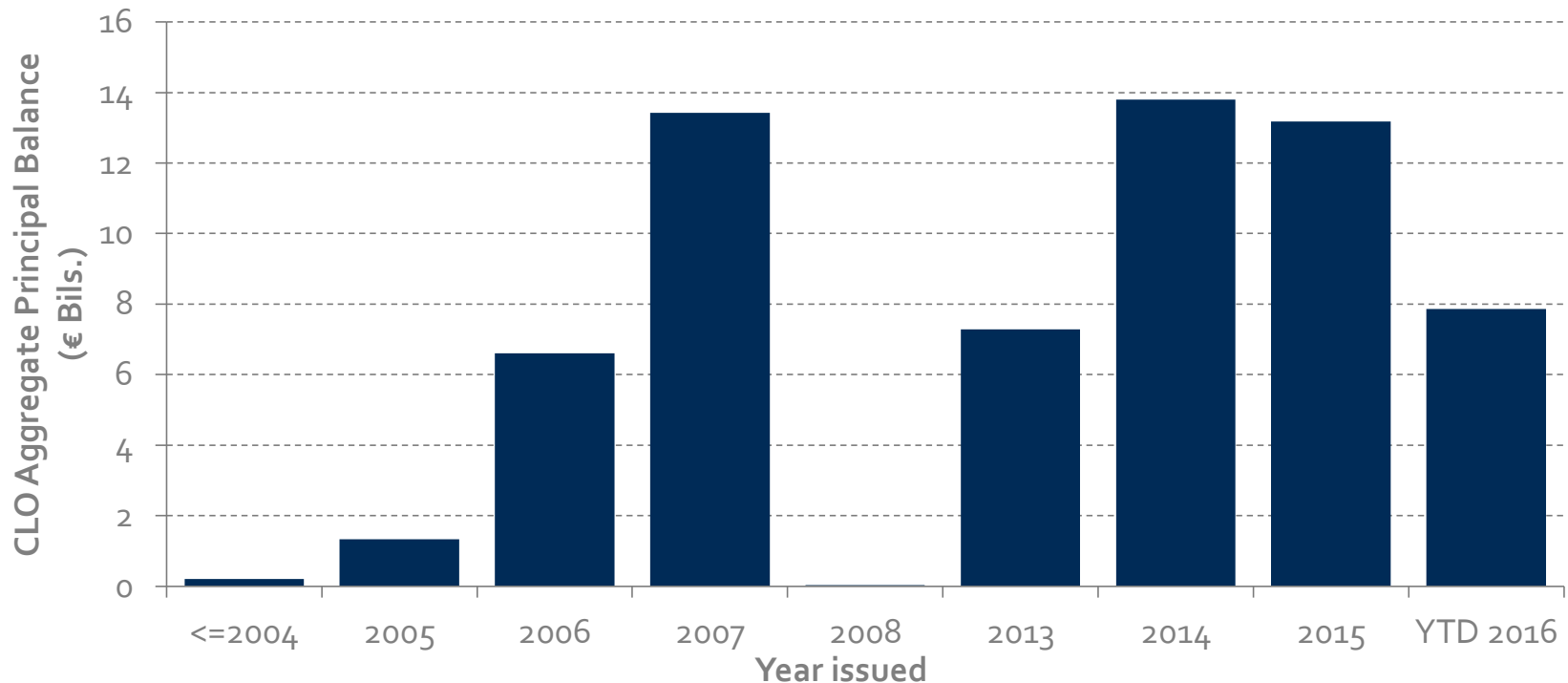
## U.S. CLO AGGREGATE PRINCIPAL BALANCE BY VINTAGE



- CLO 2.0s now account for 89% of U.S. CLO assets under management.
- Deals issued since the beginning of 2015 represent 30% of CLO assets under management.

# EUROPEAN CLO AUM BY VINTAGE

## EUROPEAN CLO AGGREGATE PRINCIPAL BALANCE BY VINTAGE

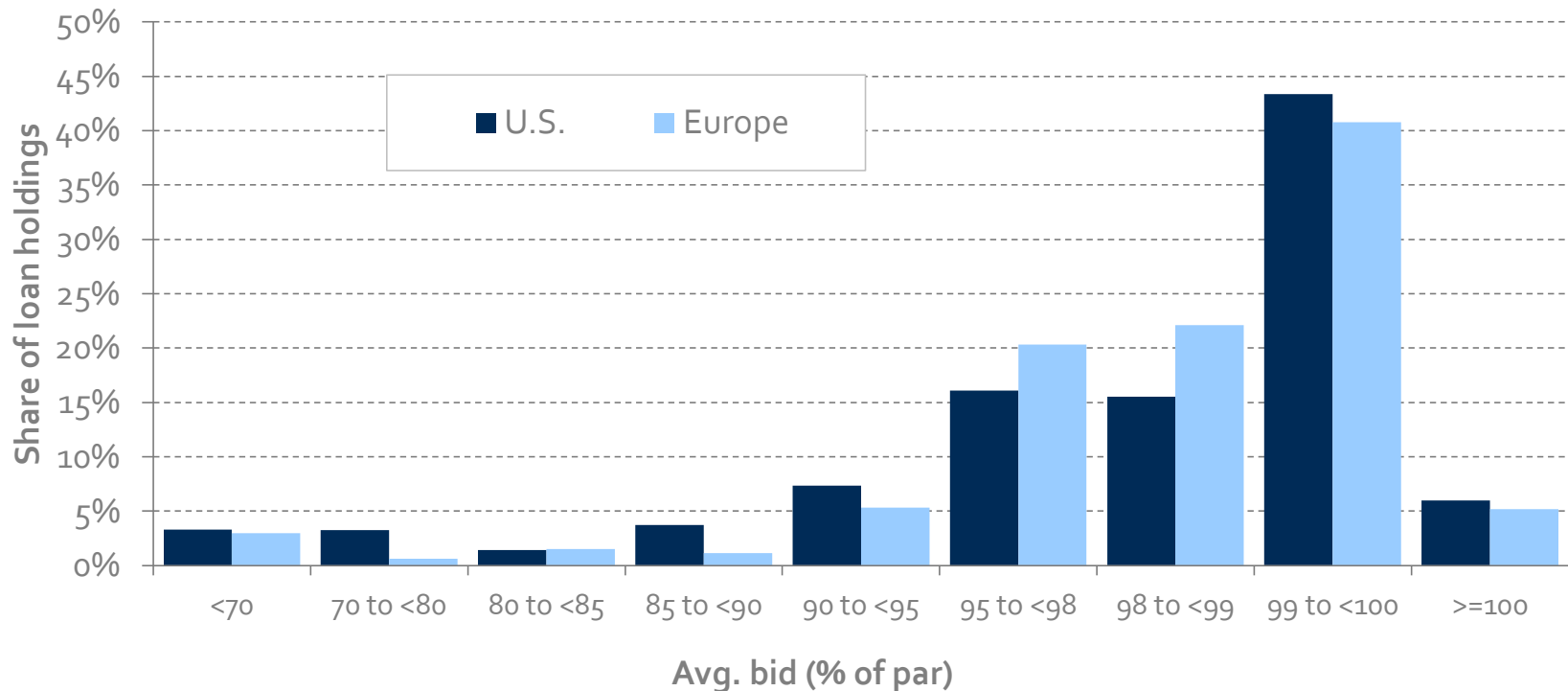


\*Based on year issued

- European CLO 2.0s share of assets under management is now at €42 billion or 66% of the market.

# DISTRIBUTION OF SECONDARY MARKET PRICES OF LOAN ASSETS IN CLOs

## DISTRIBUTION OF SECONDARY MARKET PRICES OF LOAN ASSETS IN CLOs

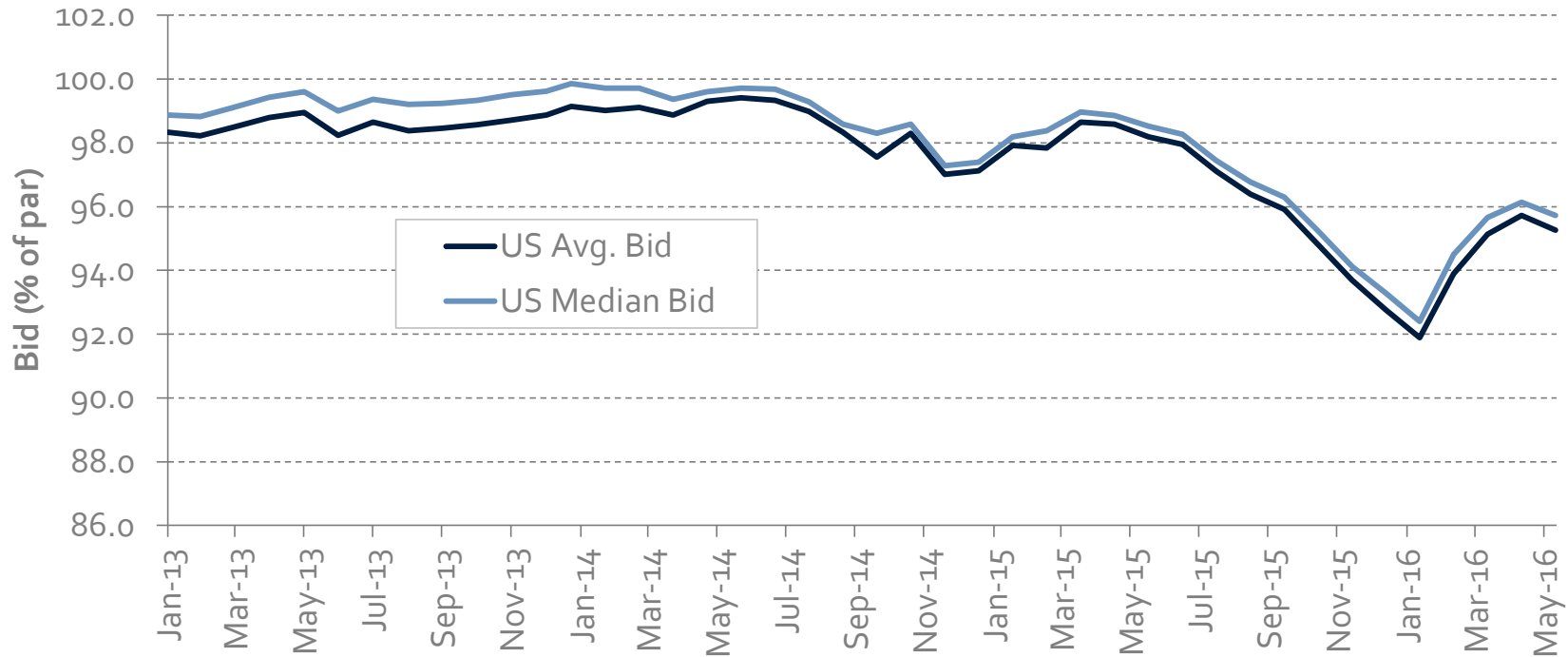


- Loan bids at the upper end of the price spectrum moved lower in June. The share of loan assets in U.S. CLOs bid above 100 fell to 6% (from 28%) and to 5% (from 42%) for European CLOs.



# AVERAGE BID OF U.S. CLO PORTFOLIOS (UNDERLYING ASSETS)

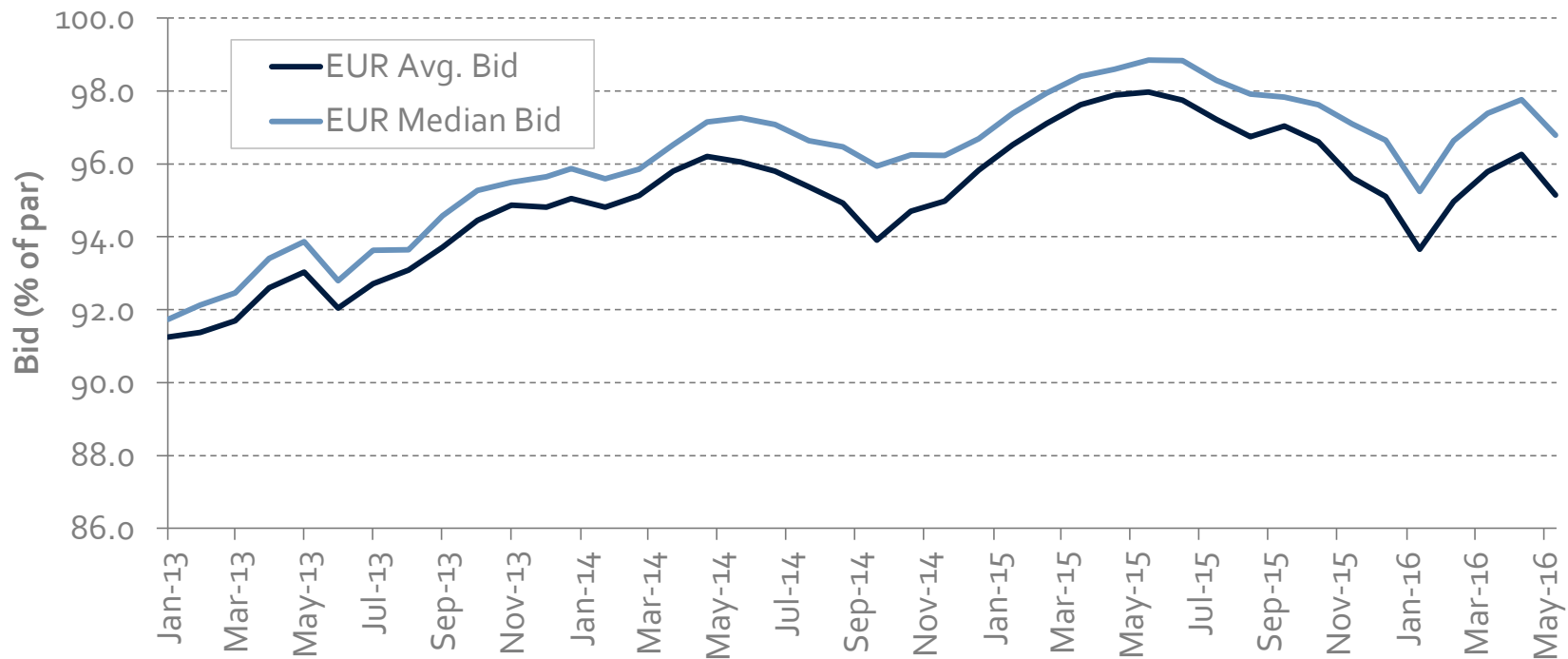
## AVERAGE BID OF U.S. CLO PORTFOLIOS



- The average bid of U.S. CLO portfolios declined to 95.27 in June, a drop of 46 bps.
- The median bid fell to 95.73 from 96.14 a month earlier.

# AVERAGE BID OF EUROPEAN CLO PORTFOLIOS (UNDERLYING ASSETS)

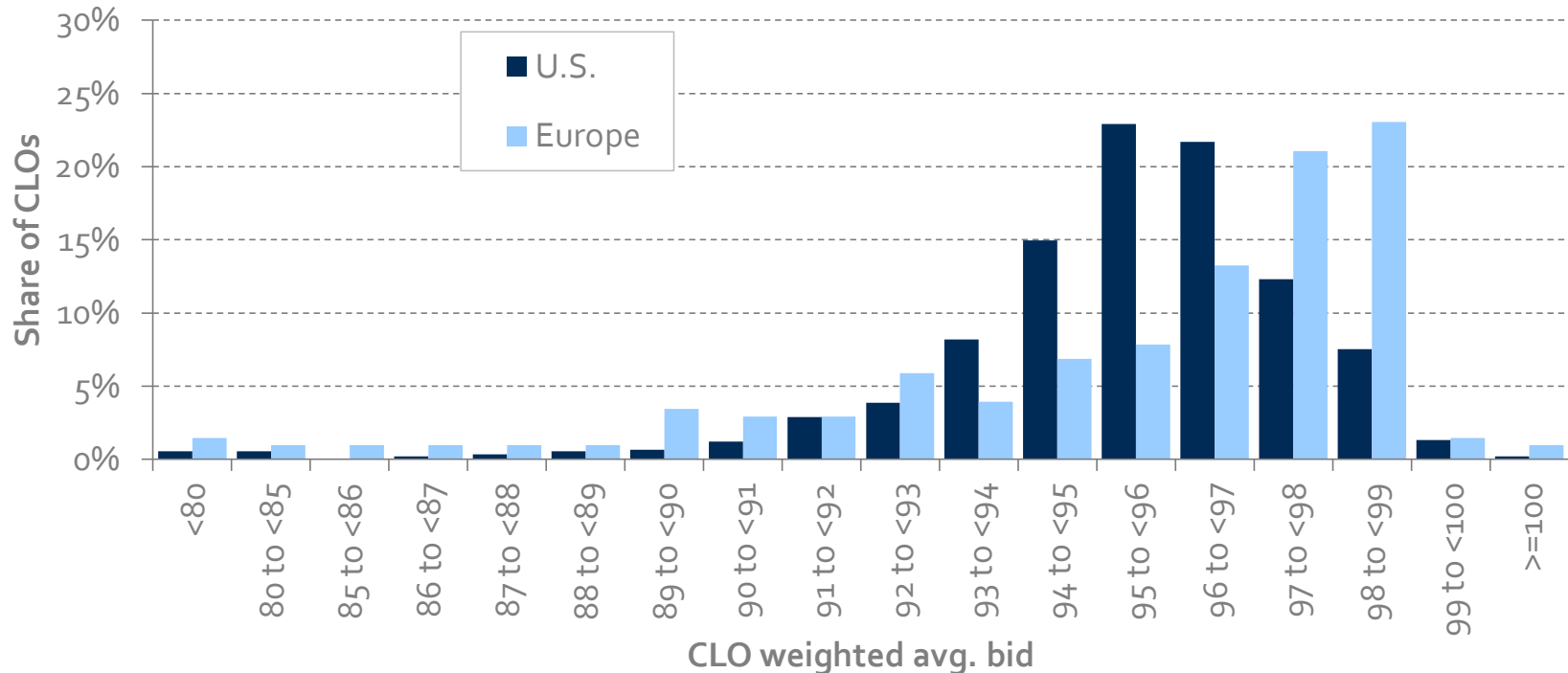
## AVERAGE BID OF EUROPEAN CLO PORTFOLIOS



- The average bid of European CLOs asset portfolios fell 111 bps to 95.15 in June.
- The median bid declined to 96.79 from 97.76 a month earlier.

# WEIGHTED AVERAGE BID OF CLO PORTFOLIOS: U.S. VS. EUROPE

## CLO PORTFOLIO WEIGHTED AVERAGE BID DISTRIBUTION (UNDERLYING ASSETS)



\*Excludes CLOs less than \$50 million in size.

- Over two-thirds of US and European CLO portfolios have a weighted average bid on their assets above 95 cents on the dollar, though European portfolios in this segment are bid higher on average than their US counterparts.
- At the lower end, 3% of U.S. CLOs and 10% of European CLOs now have a weighted average bid in the sub-90 range.





REUTERS/Petar Kujundzic

# LIST OF RECENT CLOs / LEAGUE TABLES



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## YTD 2016 U.S. CLOs

Date priced	CLO manager	CLO name	Agent bank	Trustee	Deal size	AAA size	Equity size
22-Jan-16	Babson Capital	Babson CLO 2016-1	Morgan Stanley	Citi/Virtus	407.00	250.50	36.50
22-Jan-16	Voya Investment Management	Voya CLO 2016-1	JP Morgan	US Bank	419.30	257.30	37.75
2-Feb-16	Golub Capital	Golub 30	Greensledge	US Bank	478.00		95.50
12-Feb-16	NewStar Financial	Newstar Commercial Loan Funding 2016-1	Wells Fargo	US Bank	348.01	196.50	45.51
24-Feb-16	Neuberger Berman	Neuberger Berman CLO XXI	Morgan Stanley	US Bank	361.50	226.20	30.90
25-Feb-16	BlackRock Financial Management	Magnetite XVII	Deutsche Bank	Deutsche Bank	498.75	320.00	38.75
25-Feb-16	Credit Suisse Asset Management	Madison Park Funding XX	JP Morgan	Wells Fargo	504.90	310.00	44.90
25-Feb-16	Denali Capital	Denali Capital CLO XII	BNP Paribas	US Bank	358.84	222.25	36.86
4-Mar-16	Highbridge Principal Strategies	Highbridge Loan Management 8-2016	Morgan Stanley	US Bank	406.75	251.00	37.75
9-Mar-16	Oaktree Capital Management	Oaktree EIF I Series A	Wells Fargo	BNY Mellon	470.00	289.80	88.10
15-Mar-16	American Capital Asset Management	ACAS CLO 2016-9	Citi	US Bank	405.48	268.00	36.48
16-Mar-16	Wellfleet Credit Partners	Wellfleet CLO 2016-1	Morgan Stanley	US Bank	358.50	229.50	34.50
17-Mar-16	Carlyle Investment Management	Carlyle GMS CLO 2016-1	JP Morgan	State Street	402.90	246.40	34.90
18-Mar-16	Symphony Asset Management	Symphony CLO XVII	Greensledge	BNY Mellon	512.00	320.75	52.00
21-Mar-16	LCM Asset Management	LCM XXI	Deutsche Bank	Deutsche Bank	381.06	235.00	36.36
23-Mar-16	Invesco	Upland CLO	Citi	US Bank	406.25	260.00	38.25
23-Mar-16	Creek Source LLC	Mill Creek CLO II	Goldman Sachs	Wells Fargo	302.50	196.50	34.60
24-Mar-16	Telos Asset Management	Telos CLO 2016-7	Societe Generale	US Bank	252.37	156.50	27.37
24-Mar-16	Octagon Credit Investors	Octagon Investment Partners 26	Bank of America Merrill Lynch	US Bank	509.10	310.00	49.10
31-Mar-16	Canyon Capital	Canyon CLO 2016-1	Goldman Sachs	Deutsche Bank	451.00	292.50	39.25

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## YTD 2016 U.S. CLOs

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Date priced	CLO manager	CLO name	Agent bank	Trustee	Deal size	AAA size	Equity size
13-Apr-16	BlueMountain Capital Management	BlueMountain CLO 2016-1	JP Morgan	Citi/Virtus	424.00	263.50	33.00
15-Apr-16	Regatta Loan Management	Regatta VI	Morgan Stanley	US Bank	411.00	255.00	42.00
20-Apr-16	American Money Management Corp	AMMC CLO 18	Jefferies	US Bank	406.15	243.00	38.15
20-Apr-16	Onex Credit Partners	OCP 2016-11	Citi	Citi/Virtus	501.60	310.00	45.10
20-Apr-16	Prudential Investment Management	Dryden 42 Senior Loan Fund	BNP Paribas	US Bank	401.75	248.00	35.75
20-Apr-16	Zais Group	Zais CLO 4	RBC Capital Markets	US Bank	280.70	188.50	35.20
20-Apr-16	Golub Capital	Golub Capital Partners CLO LTD 2016-31	Wells Fargo	Wells Fargo	354.29	192.50	98.41
25-Apr-16	Sound Point Capital Management	Sound Point CLO XI	Credit Suisse	US Bank	512.50	322.50	52.50
26-Apr-16	Palmer Square Capital Management	Palmer Square Loan Funding 2016-2	JP Morgan	Citi/Virtus	200.78	135.00	15.78
27-Apr-16	Highbridge Principal Strategies	Highbridge Loan Management 9-2016	Citi	US Bank	502.55	310.00	42.55
27-Apr-16	Carlyle Investment Management	Carlyle GMS CLO 2016-2	Citi	US Bank	499.00	310.00	39.00
27-Apr-16	Sankaty Advisors	Race Point X	Citi	Wells Fargo	401.85	259.00	31.35
29-Apr-16	Black Diamond Capital Management	Black Diamond CLO 2016-1	JP Morgan	US Bank	359.60	213.50	38.30
29-Apr-16	Brightwood Capital Advisors	Brightwood Capital Fund III	Natixis	US Bank	652.80	358.80	230.00
2-May-16	Trinitas Capital Management	Trinitas CLO IV	Wells Fargo	US Bank	406.65	260.00	36.65
5-May-16	Aegon USA Investment Management	Cedar Funding V	Jefferies	Citi/Virtus	397.15	254.00	28.65
10-May-16	Apollo Credit Management	ALM XIX	Citi	US Bank	473.35	308.75	36.35
12-May-16	MidOcean Credit Partners	MidOcean Credit CLO V	Credit Suisse	Wells Fargo	405.25	256.00	29.25
13-May-16	DFG Investment Advisors	Vibrant CLO 2016-4	Goldman Sachs	Citi/Virtus	406.00	260.00	40.00
16-May-16	York Capital	York CLO-3	Morgan Stanley	US Bank	403.20	269.50	31.70

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## YTD 2016 U.S. CLOs

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Date priced	CLO manager	CLO name	Agent bank	Trustee	Deal size	AAA size	Equity size
17-May-16	Newfleet Asset Management	Newfleet CLO 2016-1	Wells Fargo	BNY Mellon	356.3	228.0	36.3
18-May-16	THL Credit	THL Credit Wind River 2016-1	RBC Capital Markets	US Bank	608.3	384.0	56.3
23-May-16	Rothschild	Ocean Trails 2016-6	Nomura	US Bank	305.5	194.0	26.0
25-May-16	Octagon Credit Investors	Octagon Investment Partners 27	Citi	US Bank	510.4	310.0	50.4
26-May-16	Steele Creek Investment Management	Steele Creek CLO 2016-1	BNP Paribas	US Bank	306.5	192.3	24.0
31-May-16	Arrowpoint Asset Management	Arrowpoint CLO 2016-5	Goldman Sachs	US Bank	354.5	224.0	17.5
31-May-16	KKR Financial Advisors	KKR CLO 14	Natixis	BNY Mellon	508.2	320.0	50.5
02-Jun-16	TCI Capital Management	Flatiron 2016-1	Bank of America Merrill Lynch	Deutsche Bank	408.5	256.0	40.5
03-Jun-16	Teacher's Advisors Inc	TIAA CLO I	Wells Fargo	US Bank	455.5	292.5	41.5
07-Jun-16	Voya Investment Management	Voya CLO 2016-2	Citi	US Bank	407.3	259.0	39.2
09-Jun-16	TPG Capital	TICP CLO V	Bank of America Merrill Lynch	US Bank	410.3	240.0	42.3
10-Jun-16	GSO Blackstone	Westcott Park CLO	Wells Fargo	Wells Fargo	650.1	413.4	61.3
10-Jun-16	Apollo Credit Management	ALM XVIII	BNP Paribas	US Bank	450.1	275.0	36.6
16-Jun-16	Guggenheim Investment Management	Seven Sticks CLO	Citi	US Bank	401.5	256.0	33.3
16-Jun-16	PineBridge Investments	Galaxy CLO XXII	Goldman Sachs	Deutsche Bank	400.0	256.4	28.0
16-Jun-16	MJX Asset Management	Venture CLO XXIII	Credit Suisse	Citi/Virtus	411.3	258.5	40.8
17-Jun-16	Benefit Street Partners	Benefit Street Partners CLO IX	Morgan Stanley	US Bank	404.4	256.0	34.4
17-Jun-16	Guggenheim Investment Management	1828 CLO	Greensledge	US Bank	410.0	250.4	44.3
22-Jun-16	GoldenTree Asset Management	GoldenTree Loan Opportunities XII	Greensledge	BNY Mellon	411.0	246.8	41.4
22-Jun-16	Anchorage Capital Group	Anchorage Capital CLO 8	Deutsche Bank	US Bank	409.8	251.2	32.6
23-Jun-16	Ares Management	Ares XXXIX	JP Morgan	US Bank	510.0	330.0	45.0
30-Jun-16	Mariner Investment Group	Mariner CLO 2016-3	Citi	US Bank	503.4	330	43.4

## YTD 2016 U.S. CLO - PRICING

Date priced	CLO name	AAA coupon	AAA DM	AA coupon	AA DM	A coupon	A DM	BBB coupon	BBB DM	BB coupon	BB DM	B coupon	B DM
22-Jan-16	Babson CLO 2016-1	150	150	225	225	325	325	385	475	655	890		
22-Jan-16	Voya CLO 2016-1	150		220		295		420		655			
2-Feb-16	Golub Capital CLO 2016-30					233		425					
12-Feb-16	Newstar Commercial Loan Funding 2016-1	230	230	375	375	540	540						
24-Feb-16	Neuberger Berman CLO XXI	155		240		330		495		700			
25-Feb-16	Magnetite XVII	155	155	235	235	345	345	515	575	815	950		
25-Feb-16	Madison Park Funding XX	155		235		330		445		740			
25-Feb-16	Denali Capital CLO XII	175		245		345		465		775			
4-Mar-16	Highbridge Loan Management 8-2016	155	155	240	240	375	375	485	624	790	975		
9-Mar-16	Oaktree EIF I Series A	158	158	250	250	400							
15-Mar-16	ACAS CLO 2016-9	158		340		360		535		855		855	
16-Mar-16	Wellfleet CLO 2016-1	175		265		365		557		858			
17-Mar-16	Carlyle GMS CLO 2016-1	158		235		330		490		760			
18-Mar-16	Symphony CLO XVII	150		225		335		480		740			
21-Mar-16	LCM XXI	155	155	240	240	350	350	510	570	765	910		
23-Mar-16	Upland CLO	160	160	240	240	345	350	435	600	825	990		
23-Mar-16	Mill Creek CLO II	175	175	250	257	335	365	485	570	775	960		
24-Mar-16	Telos CLO 2016-7	165		270		325		500		750			
24-Mar-16	Octagon Investment Partners 26	158	158	250	250	335	350	495	570	785	935		
31-Mar-16	Canyon CLO 2016-1	160	160	243	243	355	360	545/485	590/570	750	960		

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## YTD 2016 U.S. CLO - PRICING

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Date priced	CLO name	AAA coupon	AAA DM	AA coupon	AA DM	A coupon	A DM	BBB coupon	BBB DM	BB coupon	BB DM	B coupon	B DM
13-Apr-16	BlueMountain CLO 2016-1	158	158	230	230	325	325	450	500	730	800		
15-Apr-16	Regatta VI	169		240		342		505		701			
20-Apr-16	AMMC CLO 18	165	165	260	260	324		500		667/725			
20-Apr-16	OCP 2016-11	159	159	240	245	345	345	500	600	700/900	900		
20-Apr-16	Dryden 42 Senior Loan Fund	156	156	215	215	215	315	450	preplaced	725	795		
20-Apr-16	Zais CLO 4	158		255		366		562					
20-Apr-16	Golub Capital Partners CLO LTD 2016-31	220	220	315	325	440	460						
25-Apr-16	Sound Point CLO XI	165		240		320		465		695			
26-Apr-16	Palmer Square Loan Funding 2016-2	135	135	210	210	315	315	430	450	700	750		
27-Apr-16	Highbridge Loan Management 9-2016	156	156	225	225	330		530		645	800		
27-Apr-16	Carlyle GMS CLO 2016-2	156	156	220	220	330		530		645	800		
27-Apr-16	Race Point X	160	160	235	235	345		550		725	835	750	1050
29-Apr-16	Black Diamond CLO 2016-1	165		265		335		485		815			
29-Apr-16	Brightwood Capital Fund III	264											
2-May-16	Trinitas CLO IV	175		275		370		530/650		863			
5-May-16	Cedar Funding V	161	161	235	235	310	325	465	465	770	770		
10-May-16	ALM XIX	155	155	220	220	300	300	435	450	735	775		
12-May-16	MidOcean Credit CLO V	170		260		350		550		695		730	
13-May-16	Vibrant CLO 2016-4	165	170	240	255	330	360	450	575	675			
16-May-16	York CLO-3	157	157	220	220	335	335	535/495	535	568	900		

## YTD 2016 U.S. CLO - PRICING

Cont'd from prior slide

Date priced	CLO name	AAA coupon	AAA DM	AA coupon	AA DM	A coupon	A DM	BBB coupon	BBB DM	BB coupon	BB DM	B coupon	B DM
17-May-16	Newfleet CLO 2016-1	185	185	275		375		675		1100			
18-May-16	THL Credit Wind River 2016-1	165	165	235	235	320	320	465	530	750	850		
23-May-16	Ocean Trails 2016-6	175		258		345		500		775			
25-May-16	Octagon Investment Partners 27	153	153	215	215	300	300	475	475	710	800		
26-May-16	Steele Creek CLO 2016-1	170		250		350		600		675			
31-May-16	Arrowpoint CLO 2016-5	172	172	230	255	325	355	465	573	695	950		
31-May-16	KKR CLO 14	162	162	230	230	321	325	435	490	700	882		
02-Jun-16	Flatiron 2016-1	155		220		305		435		725			
03-Jun-16	TIAA CLO I	170	170	230	252	325	352	520	575	805/1000	950/1000		
07-Jun-16	Voya CLO 2016-2	154	154	210	210	290	290	425	455	695	800		
09-Jun-16	TICP CLO V	164	164	239	249	300	320	435/498	498/528	750	950		
10-Jun-16	Westcott Park CLO	153	153	210	210	290	290	435	450	720	800		
10-Jun-16	ALM XVIII	153	153	215	215	290	290	435	450	760	800		
16-Jun-16	Seven Sticks CLO	170	170	230	230	325	325	410	520	760	925		
16-Jun-16	Galaxy CLO XXII	158	158	210	210	290	290	445	450	700/825	825/840	820	950
16-Jun-16	Venture CLO XXIII	165		230		320		445		770			
17-Jun-16	Benefit Street Partners CLO IX	161	161	210	210	295	295	420	480	667	905		
17-Jun-16	1828 CLO	160	160	240	240	340	340	450	515	700	925		
22-Jun-16	GoldenTree Loan Opportunities XII	153	153	215	215	290	290	425	450	715	850		
22-Jun-16	Anchorage Capital CLO 8	165	167	225	225	315	315	420	495	650			
23-Jun-16	Ares XXXIX	153		200		275		430		725			
30-Jun-16	Mariner CLO 2016-3	159	159	200		290		400		700			

# YTD 2016 U.S. CLO REFINANCINGS

CLO manager	CLO name	Date priced	Amount (\$Mils.)	AAA coupon	AAA DM	AA coupon	AA DM	A coupon	A DM	BBB coupon	BBB DM	BB coupon	BB DM
Apollo Credit Management	ALM 2013-8	08-Mar-16	120	219	155								
American Money Management Corp	AMMC CLO IX	31-Mar-16	430	158	158	250	250	360	360	565	575	765	940
American Capital Asset Management	ACAS CLO 2013-2	30-Jun-16	160	145	145	220	220						
Neuberger Berman	Neuberger Berman CLO 2012-12	30-Jun-16	183	130									

# YTD 2016 U.S. CLO ARRANGER LEAGUE TABLE (BY VOLUME)

(THROUGH JUNE 30, 2016)

Rank	Bank Holding Company	Arranger Volume	# of Deals	Market Share
1	Citi	5,013	11	19.1%
2	Wells Fargo	3,041	7	11.6%
3	JP Morgan	2,821	7	10.8%
4	Morgan Stanley	2,752	7	10.5%
5	Goldman Sachs	1,914	5	7.3%
6	GreensLedge Capital	1,811	4	6.9%
7	BNP Paribas	1,517	4	5.8%
8	Credit Suisse	1,329	3	5.1%
9	Bank of America Merrill Lynch	1,328	3	5.1%
10	Deutsche Bank	1,290	3	4.9%
11	Natixis	1,161	2	4.4%
12	RBC Capital Markets	889	2	3.4%
13	Jefferies	803	2	3.1%
14	Nomura	306	1	1.2%
15	Societe Generale	252	1	1.0%

# YTD 2016 U.S. CLO MANAGER LEAGUE TABLE (BY VOLUME)

(THROUGH JUNE 30, 2016)

Rank	CLO Manager	CLO Volume	# of Deals	Market Share
1	Octagon Credit Investors	1019.5	2	3.89%
2	Apollo Credit Management	923.4	2	3.52%
3	Highbridge Principal Strategies	909.3	2	3.47%
4	Carlyle Investment Management	901.9	2	3.44%
5	Golub Capital Partners	832.3	2	3.17%
6	Voya Investment Management	826.6	2	3.15%
7	Guggenheim Investment Management	811.4	2	3.09%
8	Brightwood Capital Advisors	652.8	1	2.49%
9	GSO Blackstone	650.1	1	2.48%
10	THL Credit	608.3	1	2.32%
11	Sound Point Capital Management	512.5	1	1.95%
12	Symphony Asset Management	512.0	1	1.95%
13	Ares Management	510.0	1	1.94%
14	KKR Financial Advisors	508.2	1	1.94%
15	Credit Suisse Asset Management	504.9	1	1.93%
16	Mariner Investment Group	503.4	1	1.92%
17	Onex Credit Partners	501.6	1	1.91%
18	BlackRock Financial Management	498.8	1	1.90%
19	Oaktree Capital Management	470.0	1	1.79%
20	Teacher's Advisors Inc	455.5	1	1.74%
21	Canyon Capital	451.0	1	1.72%
22	BlueMountain Capital Management	424.0	1	1.62%
23	MJX Asset Management	411.3	1	1.57%
24	Regatta Loan Management	411.0	1	1.57%
25	GoldenTree Asset Management	411.0	1	1.57%
26	TPG Capital	410.3	1	1.56%
27	Anchorage Capital Group	409.8	1	1.56%
28	TCI Capital Management	408.5	1	1.56%

# YTD 2016 U.S. CLO MANAGER LEAGUE TABLE (BY VOLUME)

Leveraged Loan Monthly - June 2016

(THROUGH JUNE 30, 2016)

Cont'd from prior slide

Rank	CLO Manager	CLO Volume	# of Deals	Market Share
29	Babson Capital	407.0	1	1.55%
30	Trinitas Capital Management	406.7	1	1.55%
31	Invesco	406.3	1	1.55%
32	American Money Management Corp	406.2	1	1.55%
33	DFG Investment Advisors	406.0	1	1.55%
34	American Capital Asset Management	405.5	1	1.55%
35	MidOcean Credit Partners	405.3	1	1.55%
36	Benefit Street Partners	404.4	1	1.54%
37	York Capital	403.2	1	1.54%
38	Sankaty Advisors	401.9	1	1.53%
39	Prudential Investment Management	401.8	1	1.53%
40	PineBridge Investments	400.0	1	1.53%
41	Aegon USA Investment Management	397.2	1	1.51%
42	LCM Asset Management	381.1	1	1.45%
43	Neuberger Berman	361.5	1	1.38%
44	Black Diamond Capital Management	359.6	1	1.37%
45	Denali Capital	358.8	1	1.37%
46	Wellfleet Credit Partners	358.5	1	1.37%
47	Newfleet Asset Management	356.3	1	1.36%
48	Arrowpoint Asset Management	354.5	1	1.35%
49	NewStar Financial	348.0	1	1.33%
50	Steele Creek Investment Management	306.5	1	1.17%
51	Rothschild	305.5	1	1.16%
52	Creek Source LLC	302.5	1	1.15%
53	Zais Group	280.7	1	1.07%
54	Telos Asset Management	252.4	1	0.96%
55	Palmer Square Capital Management	200.8	1	0.77%

# YTD 2016 U.S. CLO TRUSTEE LEAGUE TABLE (BY VOLUME)

*(THROUGH JUNE 30, 2016)*

Rank	Trustee	Trustee Volume	# of Deals	Market Share
1	US Bank	16,060.65	38	61.24%
2	Citi/Virtus	2,747.75	7	10.48%
3	Wells Fargo	2,618.93	6	9.99%
4	BNY Mellon	2,257.45	5	8.61%
5	Deutsche Bank	2,139.30	5	8.16%
6	State Street	402.9	1	1.54%

## YTD 2016 EUROPEAN CLOs

Date Priced	CLO Name	CLO Manager	Deal Size (€m)	Agent Bank	Liability Spread (bps)					
					AAA	AA	A	BBB	BB	B
15-Jan-16	Arbour CLO III	Oaktree Capital Management	414.35	Citi	150	220	305	420	644	856
09-Feb-16	Blackrock European CLO I	BlackRock Investment Management	410.24	Credit Suisse	150					
17-Mar-16	CVC Cordatus Loan Fund VI	CVC Credit Partners	411.00	Credit Suisse	150	215	350	515		
22-Mar-16	BlueMountain Euro CLO 2015-1	BlueMountain Fuji Management	409.80	JP Morgan	170	235	335	515	815	
22-Mar-16	Contego CLO III	NM Rothschild & Sons	307.80	Deutsche Bank	157	220	335	510	800	
24-Mar-16	Bosphorus CLO II	Commerzbank	277.70	Stifel	143	215			750	875
30-Mar-16	Harvest CLO XV	3i Debt Management	413.00	RBC/Resource Capital	150	225	335			
08-Apr-16	Carlyle Global Market Strategies Euro CLO 2016-1	Carlyle Investment Management	410.00	Citi	145					
12-Apr-16	Cadogan Square CLO VII	Credit Suisse Asset Management	411.65	Morgan Stanley	150	220	330	490	770	
27-Apr-16	Elm Park CLO	Blackstone/GSO	558.05	Deutsche Bank	150	210	315	435	640	865
29-Apr-16	Dryden 44 Euro CLO 2015	Pramerica Investment Management	412.90	JP Morgan						
13-May-16	ALME Loan Funding V	Apollo Credit Management	357.00	Barclays	145	210	310	430	700	950
20-May-16	Aurium CLO II	Spire Partners	359.70	Credit Suisse	145					
20-May-16	St Paul's CLO VI	Intermediate Capital Managers	412.80	Citi	145	215	310			
03-Jun-16	Avoca CLO XVI	KKR Credit Advisors	462.80	BNP Paribas	135	205	310	430	625	825
08-Jun-16	Babson Euro CLO 2016-1	Babson Capital Europe	410.00	JP Morgan	128					
09-Jun-16	Cairn CLO VI	Cairn Capital	362.93	Barclays	130	205	305	430	725	1020
13-Jun-16	Laurelin 2016-1 CLO	GoldenTree Asset Management	406.25	Credit Suisse						



## YTD 2016 EUROPEAN CLO ARRANGER LEAGUE TABLE (BY VOLUME) (THROUGH JUNE 30, 2016)

Rank	Arranger	Arranger Vol. (Euros)	Deals	Market Share
1	Credit Suisse	1,587	4	22.0%
2	Citi	1,237	3	17.2%
3	JP Morgan	1,233	3	17.1%
4	Deutsche Bank	866	2	12.0%
5	Barclays	720	2	10.0%
6	BNP Paribas	463	1	6.4%
7	Morgan Stanley	412	1	5.7%
8	Stifel	278	1	3.9%
9	RBC	207	1	2.9%
10	Resource Capital	207	1	2.9%

# YTD 2016 EUROPEAN CLO MANAGER LEAGUE TABLE (BY VOLUME) (THROUGH JUNE 30, 2016)

Rank	CLO Manager	Manager Vol. (Euros)	Deals	Market Share
1	Blackstone/GSO	558	1	7.74%
2	KKR Credit Advisors	463	1	6.42%
3	Oaktree Capital Management	414	1	5.75%
4	3i Debt Management	413	1	5.73%
5	Pramerica Investment Management	413	1	5.73%
6	Intermediate Capital Managers	413	1	5.73%
7	Credit Suisse Asset Management	412	1	5.71%
8	CVC Credit Partners	411	1	5.70%
9	BlackRock Investment Management	410	1	5.69%
10	Carlyle Investment Management	410	1	5.69%
11	Babson Capital Europe	410	1	5.69%
12	BlueMountain Fuji Management	410	1	5.69%
13	GoldenTree Asset Management	406	1	5.64%
14	Cairn Capital	363	1	5.04%
15	Spire Partners	360	1	4.99%
16	Apollo Credit Management	357	1	4.95%
17	NM Rothschild & Sons	308	1	4.27%
18	Commerzbank	278	1	3.85%



REUTERS/Petar Kujundzic

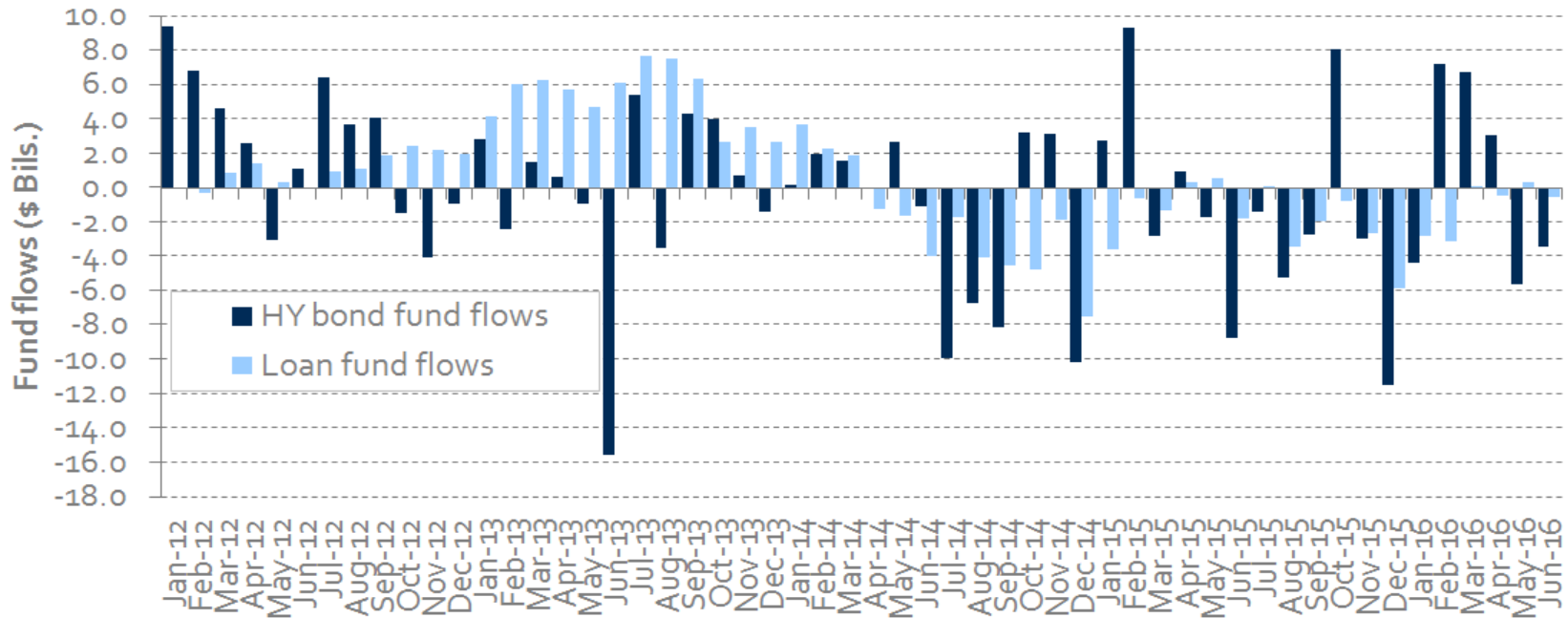
# LOAN MUTUAL FUND FLOWS & RETURNS



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# LOAN VS. HY BOND FUND FLOWS\* - MONTHLY

MONTHLY LOAN VS. HY BOND FUND FLOWS

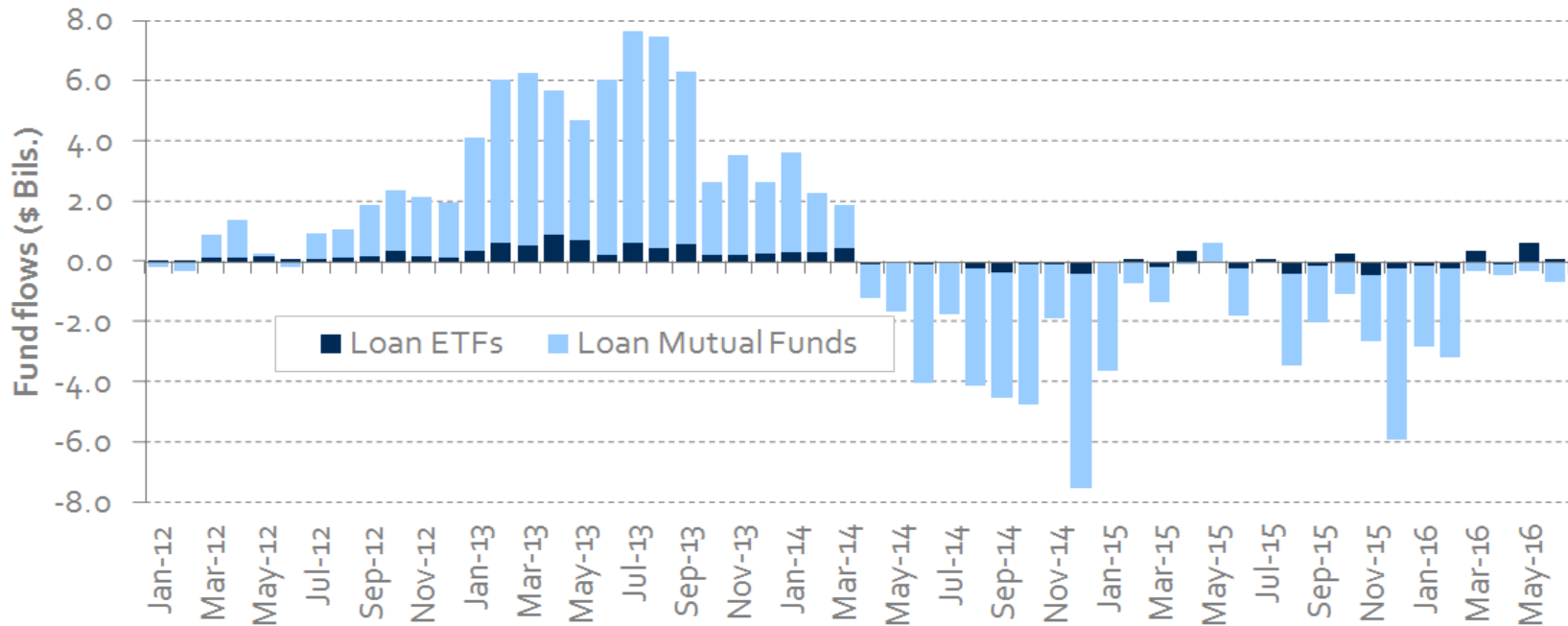


\* Based on the most recently available data and is subject to future updates.

- Based on the most recent data available, loan funds saw \$572 million exit in June, bringing year to date outflows to \$6.8 billion.
- HY bond fund flows posted another \$3.4 billion of outflows in June. Despite this, HY bond funds have added \$3.4 billion year to date.

# LOAN FUND FLOWS – MUTUAL FUND VS. ETF BREAKOUT\*

LOAN FUND FLOWS – MUTUAL FUND VS. ETF BREAKOUT

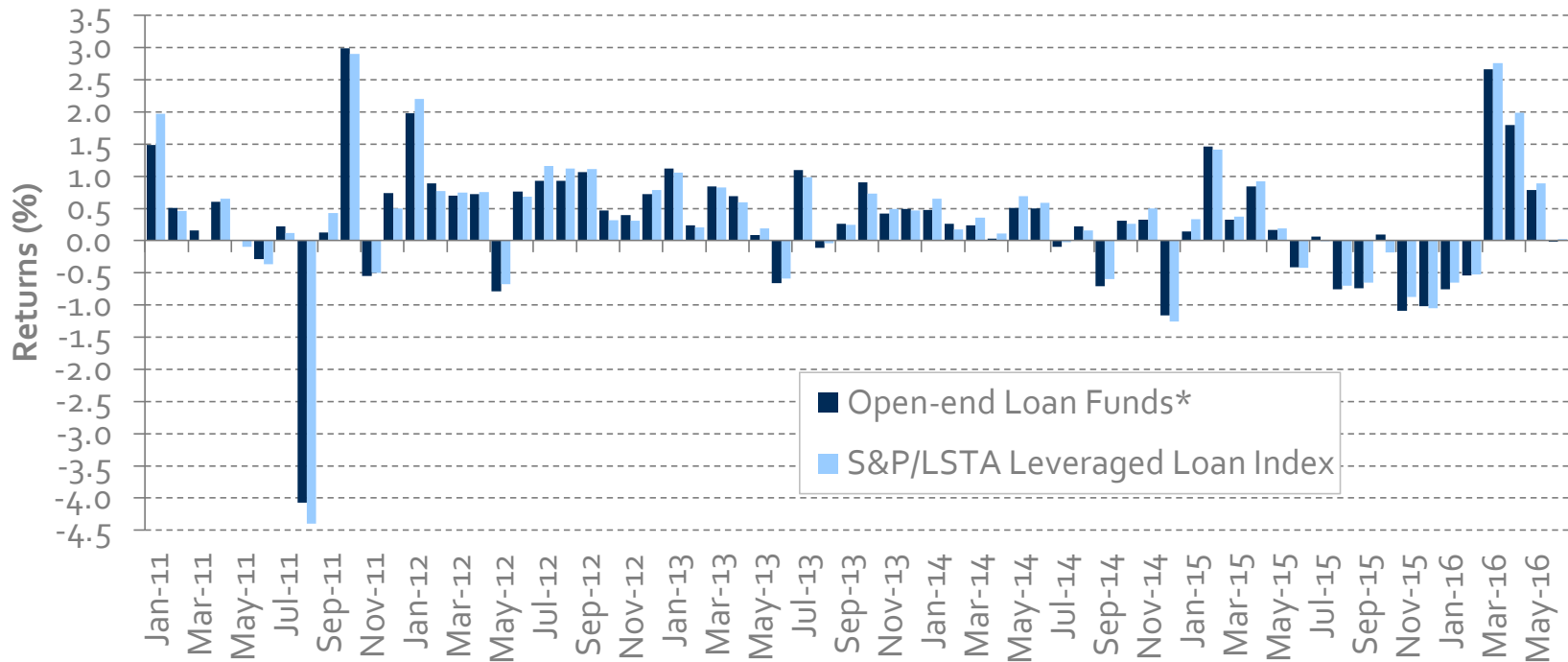


\* Based on the most recently available data and is subject to future updates.

- Breaking out loan fund flows into the mutual fund and ETF categories, ETFs added \$87 million in June, while \$669 million exited the much larger mutual fund category.
- Year to date, outflows are \$7.3 billion for mutual funds while in comparison ETFs have added \$477 million.

# LOAN FUNDS VS. LOAN INDEX – MONTHLY RETURNS

## MONTHLY FUND VS. INDEX RETURNS



\*Based on a straight average of all open-end loan fund returns.

- Loan returns were basically flat in June. Open-end loan fund returns were marginally negative at -0.02%, while the S&P/LSTA index ticked up up 0.02%.
- Year to date, open-end loan funds have gained 3.97%, with the index up 4.51%.
- Individual open-end fund YTD returns range from 0.89% to 6.33%.



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