



SOCIETY OF
ACTUARIES®

2018 Investment Symposium

Session 4A: Primer on Private Placements and Private Debt Investment

Moderator:

Suhrid Swaminarayan, FSA, FIA

Presenters:

David Lyon

John Petchler

Brian Roelke

Primer on Private Placement and Private Debt

PANELISTS – 2018 INVESTMENT SYMPOSIUM

David Lyon, John Petchler, Brian Roelke, Suhrid Swaminarayan

8 March 2018



Panelists

- David Lyon – Neuberger Berman
- John Petchler – Conning / President of the PPIA
- Brian Roelke – Nuveen
- Suhrid Swaminarayan, Moderator

Biography - David Lyon

David Lyon is a Managing Director of Neuberger Berman, Co-Head of Private Credit for NB Private Equity, and a member of the NB Private Equity Credit Opportunities and Private Debt Investment Committees. Prior to joining Neuberger Berman, he was the Director of Research at Ellis Lake Capital, a \$500 million event-driven credit hedge fund based in New York. Before Ellis Lake, Mr. Lyon was one of three professionals responsible for the day-to-day management of the Credit Opportunities Group, a multi-billion dollar portfolio of credit and equity investments at D. E. Shaw. At D. E. Shaw, Mr. Lyon was also responsible for the private equity efforts in the Credit Opportunities Group and sat on several public and private company boards, including Owens Corning and Foamex International Inc. Previously, Mr. Lyon was a Managing Director at The Cypress Group, a \$3.5 billion private equity fund, where he was a member of the Investment Committee. Prior to Cypress, Mr. Lyon was one of five original professionals at Och-Ziff Capital Management and worked in the Mergers & Acquisitions department of Goldman Sachs. Mr. Lyon earned a M.B.A. from Harvard Business School and a B.A. from the University of Notre Dame, where he graduated summa cum laude and Phi Beta Kappa.

Biography – John Petchler

John Petchler, CFA, is a Director at Conning, where he is a member of the Credit Research team, focused on Private Placements. Prior to joining Conning in 2016, Mr. Petchler was a Managing Director for Member Capital Advisors where he was responsible for managing a \$2B private placement bond portfolio and previously was a Senior Vice President for Citigroup Insurance Investments. Mr. Petchler earned a BA with a concentration in Economics, Political Philosophy and History from Wesleyan University and a MBA in Finance from New York University. He is a chartered financial analyst and has been the President of the Private Placement Investors Association since 2013.

Biography – Brian Roelke

Brian Roelke is a managing director and Head of Private Capital for Nuveen, the investment manager of TIAA. In this capacity, he sits on the private markets investment committee and leads a group of investment professionals responsible for originating investment transactions in private asset classes including debt private placements, project finance, credit tenant loans, private ABS, senior leveraged loans, mezzanine, and private equity funds and co-investments. In addition, Mr. Roelke is a member of the Churchill Asset Management Board of Directors and Churchill's investment committee. He previously served as Head of Debt Private Placements, and in a number of different positions throughout Nuveen's investment organization. Mr. Roelke has over 21 years of industry experience and joined the firm in 2002. Mr. Roelke earned a B.A. in history and economics from Colgate University and an M.B.A. in finance and accounting from New York University, where he was a Stern Scholar, was awarded a Stern Fellowship, and was a member of Beta Gamma Sigma, the international business honor society.



Private Placements: The Role of the Asset Class

March 8, 2018

John Petchler, CFA
Director | Head of Private Placements

Private Placements are a Core Asset Class for the Life Industry

- **Private Placements – what are they?**
- **Securities not registered with the SEC purchased by institutional investors**
- **Two broad types – 144a and Traditional Private Placements**
- **Rule 144a securities are a hybrid between a Public Bond and a Traditional Private Placement**
 - Some liquidity in many securities
 - Typically rated by an agency
 - Typically, do not contain financial covenants
- **Traditional Private Placements**
 - Limited liquidity in many securities
 - Can be both agency rated and unrated, with capital charge assigned by the SVO if unrated
 - Typically, contain financial covenants
 - Disclosure can include non-public information

Characteristics of Traditional Private Placements

- Asset that is income, not total return, driven because of less liquid trading opportunities
- Asset that is “buy and hold”
- Offset to the lower liquidity is the benefit of protective covenants
- Credit underwriting is based upon free cash flow generation and stability
- **Private Placement and Bank Loan Covenants protect investors from financial deterioration**
 - Increased leverage
 - Excessive asset sales
 - Material decline in cash flow generating capability

Private Placement and Bank Loan Covenants protect investors from fundamental changes

- Prevent structural subordination with limits on debt in subsidiaries and liens
- Change of Control

Economic Benefit of Traditional Private Placements

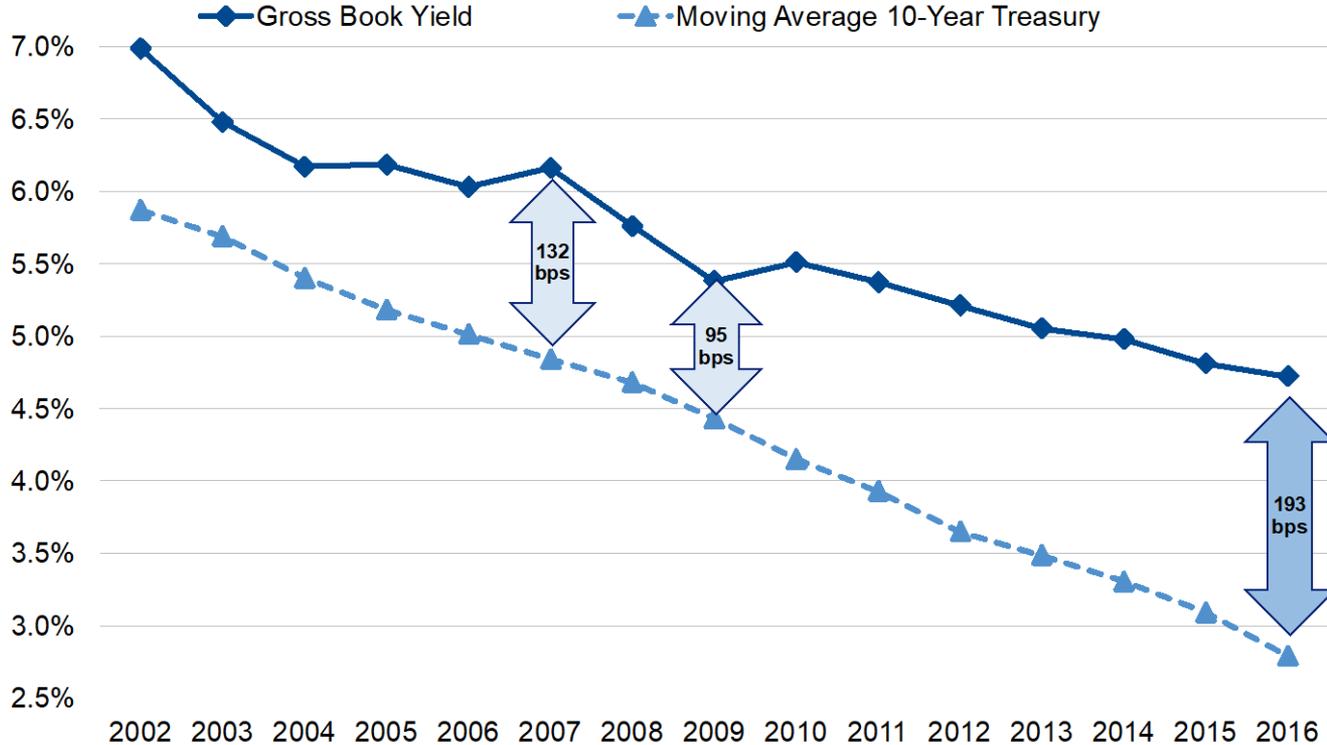
- **Diversification opportunity**
 - Add credits that do not issue in the public markets – reduce correlation of risk
 - Private companies, Project finance, Non-US issuers
- **Amortizing Cash Flows**
 - Liability matching enhanced by the ability to add transactions that have amortizing debt structures
- **Recovery rates for private placements in the event of default are higher than public corporate bonds which creates a 10 basis point advantage on a quality adjusted basis**

Public vs. Private Economic Loss Rates			
	Economic Loss Rates (bps)		
Basis	Public	Private	Difference
Unadjusted	86	15	71
Public estimated on study private quality mix	33	23	10
Private estimated based on public bond quality mix	86	65	21

Source: SOA 2003-2012 Credit Risk Loss Experience Study: Private Placement Bonds – Used by Permission.

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See associated risks on slide 10.

Declining Book Yields for the Life Industry



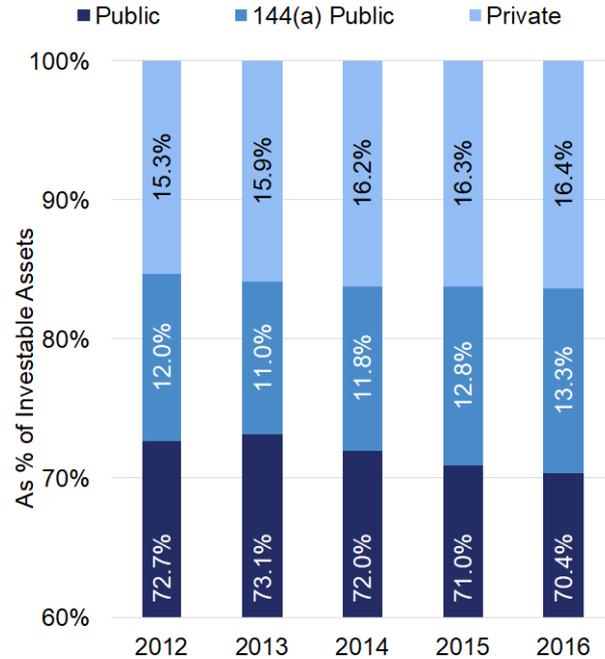
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Liquidity Tradeoffs, Quality Tradeoffs, Duration Tradeoffs

- **Less liquid asset classes offer a premium yield to liquid asset classes**
 - The life industry has added private placements and mortgage whole loans

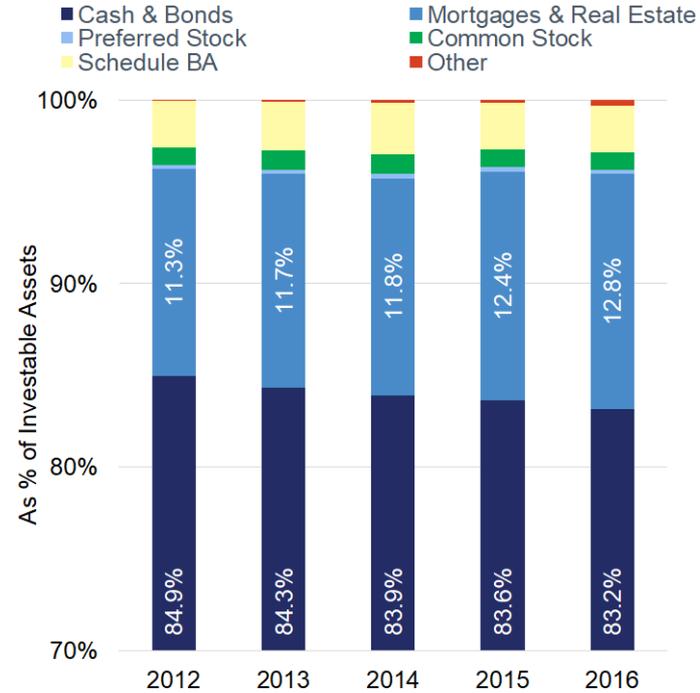
Bond Quality Distribution

As % of Total Bonds



Allocation by Asset Class

As % of Investable Assets

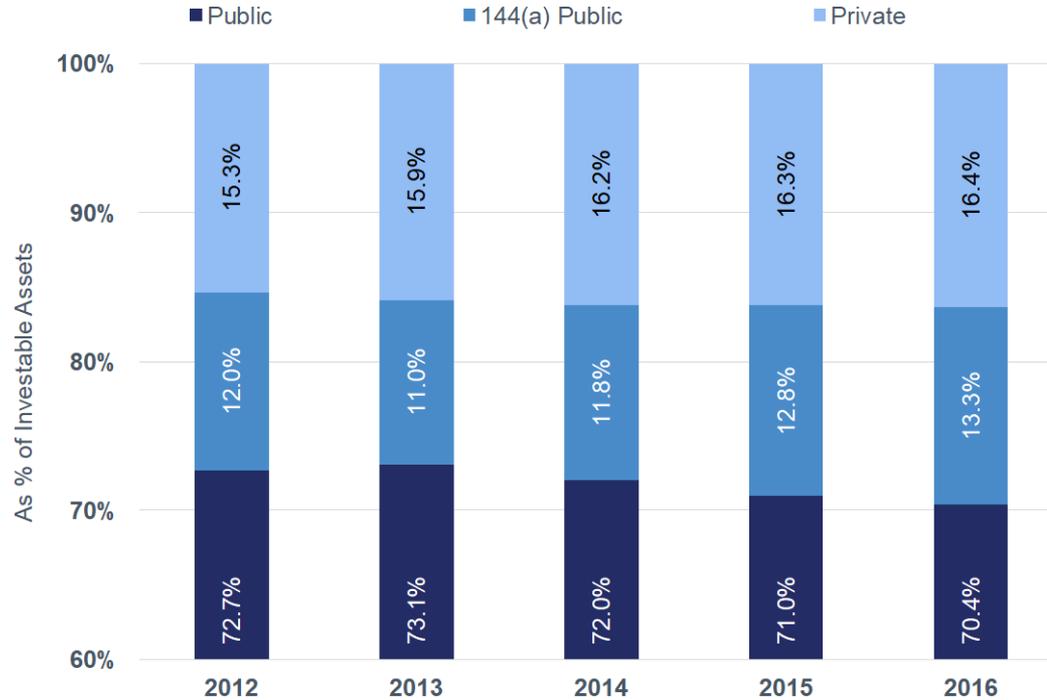


Liquidity Tradeoffs, Quality Tradeoffs, Duration Tradeoffs

- Lower quality assets offer a yield premium to higher quality assets
 - Purchases of Baa3 assets have increased in the life industry

Bond Quality Distribution

As % of Total Bonds

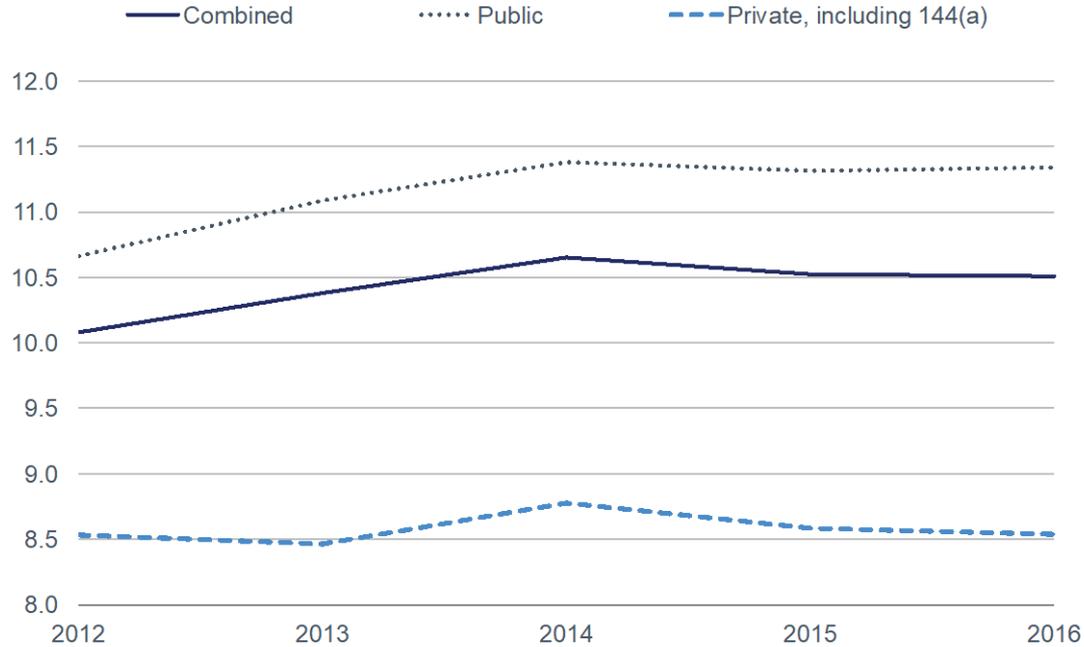


Liquidity Tradeoffs, Quality Tradeoffs, Duration Tradeoffs

- When the yield curve has a positive slope, extending duration can add yield
 - The life industry has extended duration, but not in private placements

Average Bond Maturity

(Years)



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Biography of Presenter

John Petchler, CFA, is a Director at Conning where he is a member of the Credit Research team, focused on Private Placements. Prior to joining Conning in 2016, Mr. Petchler was a Managing Director for Member Capital Advisors where he was responsible for managing a \$2B private placement bond portfolio and previously was a Senior Vice President for Citigroup Insurance Investments. Mr. Petchler earned a BA with a concentration in Economics, Political Philosophy and History from Wesleyan University and a MBA in Finance from New York University. He is a chartered financial analyst and has been the President of the Private Placement Investors Association since 2013.

Contact Info:

Phone: 860 299 2134

Email: john.petchler@conning.com

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Risks Associated with Private Placements

- Market Risk - Market, or systematic, risk is the risk that individual securities may be correlated with general market downturns regardless of the particular business conditions and outlook for the individual companies
- Credit Risk – eroding fiscal health in issuing companies resulting in inability to meet debt obligations
- Inflation Risk - Inflation erodes the purchasing power of future cash flows from investments. In times of high inflation the value of securities may be reduced
- Liquidity Risk - Liquidity risk can occur when market conditions do not allow transactions to be made in a quick and orderly fashion in relation to indicative market prices

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Investment Grade Private Placement Market – Review of 2017 and outlook for 2018

Brian Roelke, Nuveen

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2017 Market Highlights

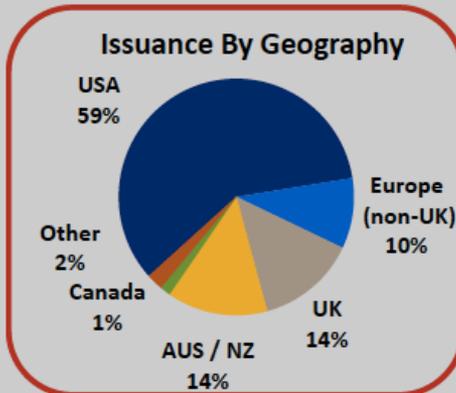
**Record Year for the
Private Placement
Market**
**\$64 billion in agented
volume**

Year of MULTIPLE Mega PP Deals
14 deals above \$750mm
(24% of volume)
5 deals above \$1 billion
(11% of volume)



US IG Public Bond Market had
record supply of **\$1.37 trillion**

EUR corporate supply at €306
billion, up 3% YoY



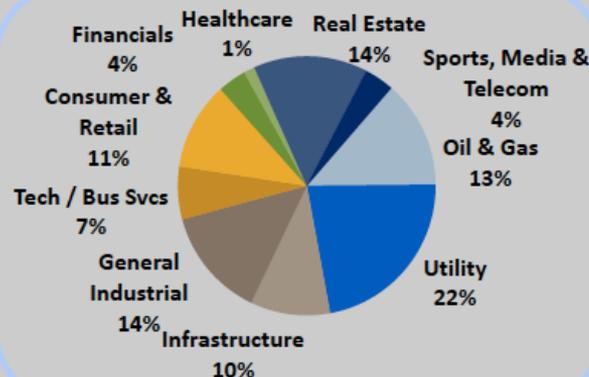
**Equity Markets Continued Their
Longest Rally Since The Great
Depression**

Geopolitical risks in the USA, UK and the EU continue along
with "Quantitative Tightening" from the Fed and ECB

2017 Market Highlights

- Deal Count Increased 10% YoY
- Strong Demand For New and Established Names
- Utilities and Energy issuers were approximately 35%
- Average Maturity ~13 years

ISSUANCE BY SECTOR

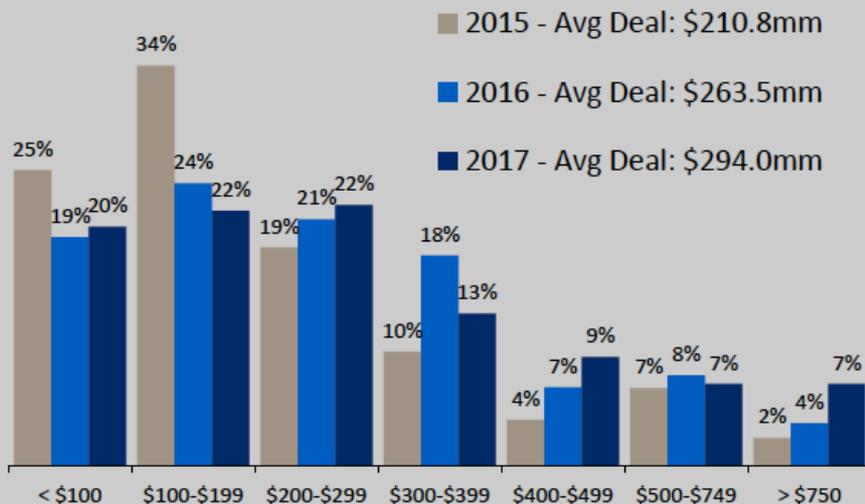


May to November 2017 comprised nearly 70% of Issuance Volume in 2017



2017: Mega Deals Are Volume Drivers

- Average Deal Sizes grew 10% YoY to \$294mm
- 14 Mega Deals in 2017 vs 7 in 2016
- 26 deals of \$500mm or more => \$23.7bn in principal
- 5 deals above \$1 billion



Mega Deals: \$750 Million Or More

Date	Issuer	Country	Principal (\$MM)
Mar-17	Mars Inc	USA	2,500
Aug-17	Ausgrid	Australia	1,880
Nov-17	Walney Extension Offshore Wind Project	Ireland	1,720
Jun-17	AES Southland	USA	1,475
May-17	ALDI	USA	1,184
Oct-17	Genuine Parts Company	USA	942
Sep-17	Indiana Toll Road	USA	850
May-17	The Ohio State University	USA	850
Nov-17	AC Bebidas / CCSWB	Mexico	800
Nov-17	Endeavour Energy	Australia	800
Feb-17	Sabine Pass Liquefaction LLC	USA	800
May-17	Danaher	USA	750
Feb-17	Liberty Utilities Co	Canada	750

14 Mega Deals: \$15.3 Billion (24% of Volume)

Record Non-USD Issuance

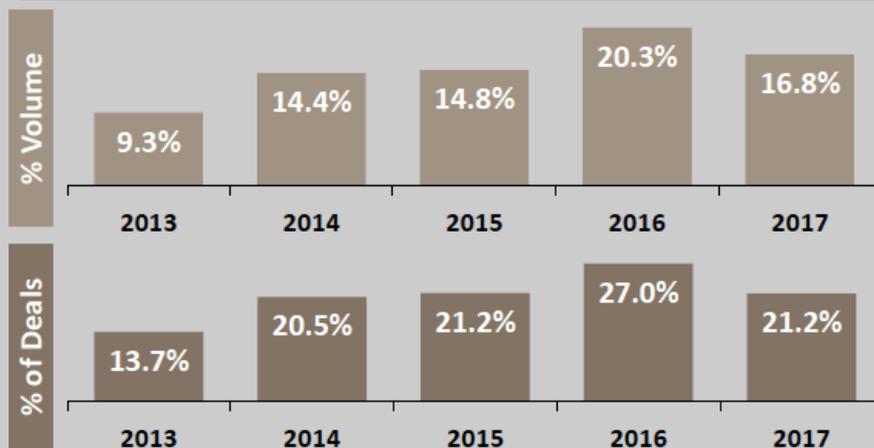
- Record Non-USD issuance in 2017 ~ \$11bn eqv.
- Long-dated non-USD amortizing tranches are key to non-USD infrastructure opportunities
- More US investors willing to do FX swaps
- New non-US investors in UK, Europe, Canada and Australia drive natural non-USD demand
- Market follows generally established swapped pricing process

- US Corporate issued ¥84 billion (\$750mm eqv.) – *the largest JPY-denominated USPP*
- US Corporate issued €800 million - *the largest Euro-denominated USPP in last 10 years*
- UK Infrastructure issued £375 million 25 and 28 year swapped amortizing Notes

Currencies by Year (as a % of non-USD volume)

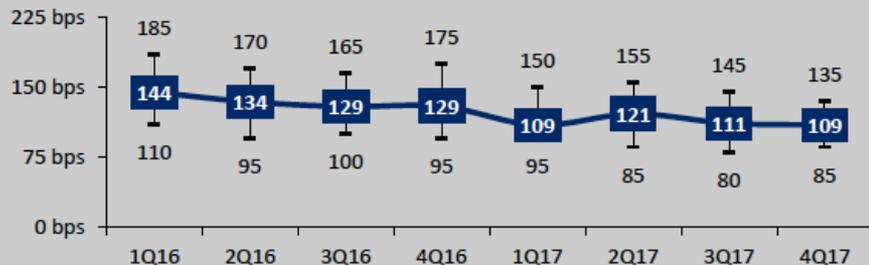
					Other
2015	8%	13%	37%	35%	4%
2016	5%	3%	46%	41%	5%
2017	12%	3%	33%	44%	8%

Non-USD Issuance: Nearly \$11bn Eqv. in 2017

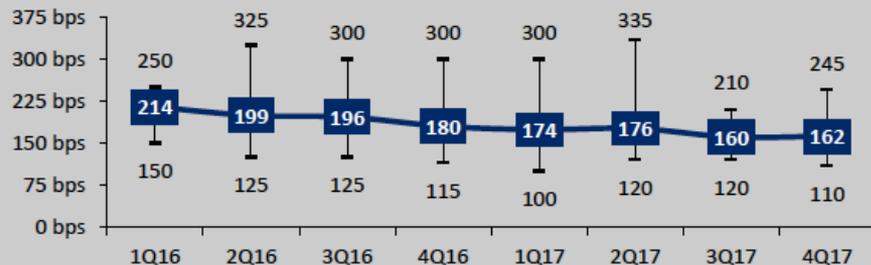


Credit Spreads Tightened in 2017

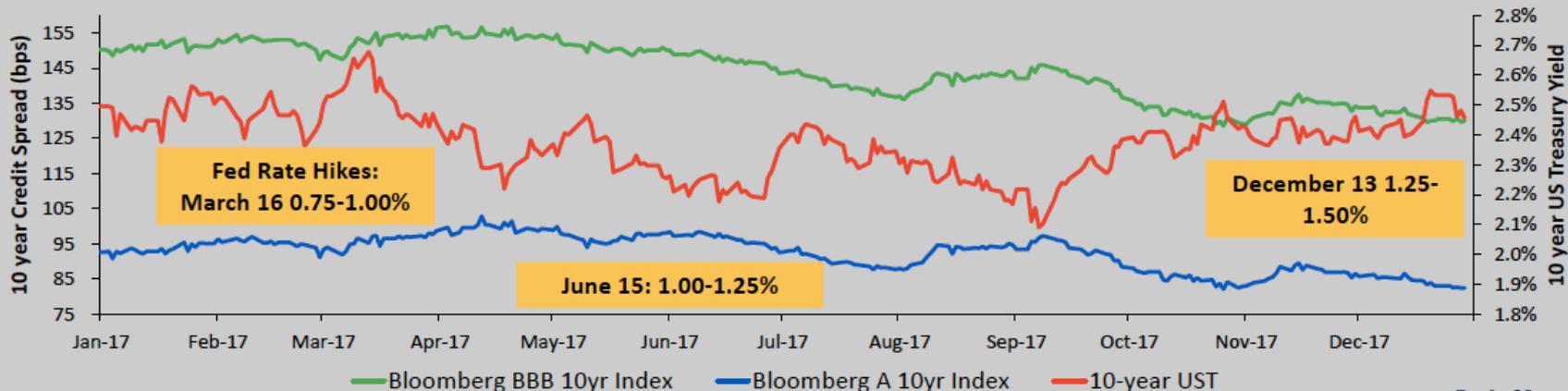
NAIC-1 Credit Spreads (20 bps tighter)



NAIC-2 Credit Spreads (18 bps tighter)



Public A and BBB Credit Spreads Tightened & Fed Rate Hikes Had Limited Immediate Effect on US Treasuries



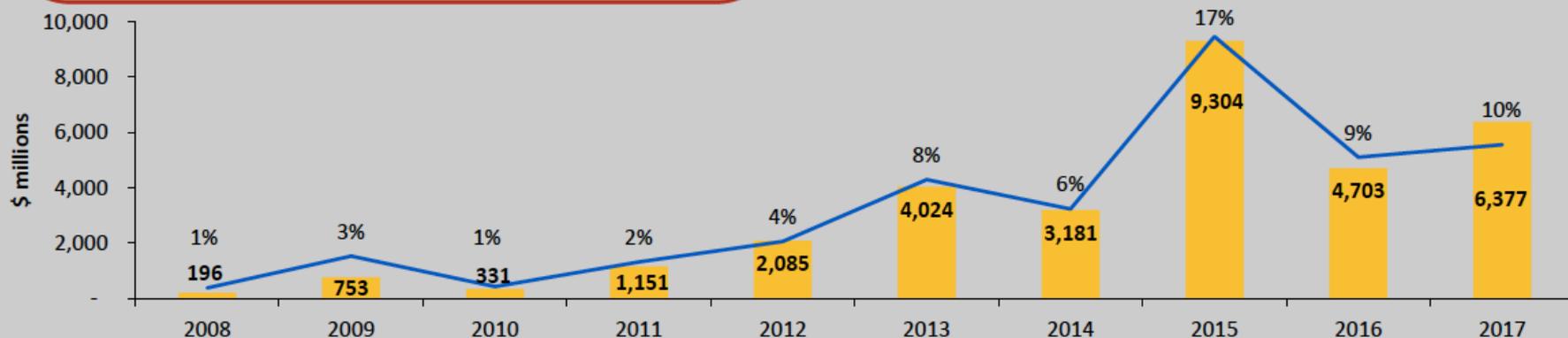
Infrastructure Continues Excellent Run

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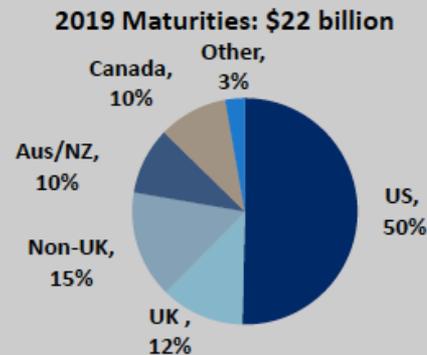
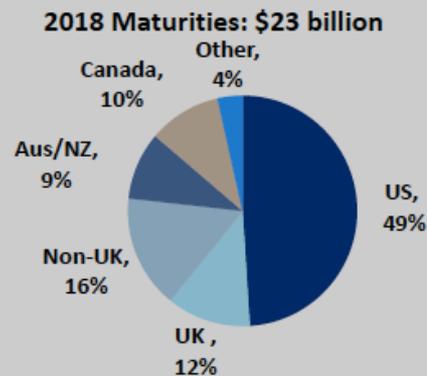
- Since 2008, Infrastructure issuance has grown exponentially
- Covenants based off common terms between banks and private placement lenders
- High complexity of transactions and documentation
- Investor appetite for long tenors is a great fit for infrastructure issuers

Growth in infrastructure volume driven by:

- New issuers from US, Europe and Australia
- Repeat issuance by established issuers
- Multiple rating agencies rate infrastructure issuers today
- Long-dated non-USD currency
- Dedicated USPP infrastructure investors and analysts



- BofAML expects Private Placement issuance volume to decline moderately from 2017
 - \$23 billion in Private Placements maturing in 2018
 - \$22 billion in Private Placements maturing in 2019
- MFL-only or public style transactions will drive growth for large multinational issuers
- Middle market opportunities and reverse inquiries
- Accelerated transaction timelines including shorter “in market” periods
- Issuers from newer jurisdictions
- More investors willing to do non-USD, longer deferrals and more issuer-friendly structures due to excess demand
- Infrastructure-related issuers and structured transactions continue to be important



The Below Investment Grade Private Credit Market

David Lyon, Neuberger Berman

Overview of U.S. Private Credit Landscape

	1 st Lien / Leveraged Loan Market	Middle Market 1 st Lien	Unitranche Loans	2 nd Lien / Private High Yield	Mezzanine
Company Size (\$mm EBITDA)	> \$75mm	\$25-\$75mm	\$25-\$50mm	\$30-\$150mm	\$20-\$50mm
Security	1 st	1 st	1 st	2 nd	None
Maintenance Covenants	Rarely	Yes	Yes	Rarely / No	Usually
Leverage	0-4.5x	0-4.75x	0-5.75x	4.5-7.0x	4.5-7.0x
Sponsor- Owned Issuers	Varied	Mostly	Mostly	Mostly	Mostly
Ratings	BB/B	B/NR	B/NR	CCC/NR	NR
Rate¹	L+ 300-450	L+ 450-575	L+ 575-675	L+ 700-1000	9-13%

Source: NB Alternatives Analysis
1. Commonly with LIBOR floor of 1.0%



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