Pricing Mortgage Bonds & Structured Credit

WEBINAR | 21ST JUNE 2017 | 10AM ET
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010 – 1020</td>
<td>Market Data Challenges in Structured Finance</td>
</tr>
<tr>
<td>1020 – 1030</td>
<td>Evaluated Pricing On-Demand</td>
</tr>
<tr>
<td>1030 – 1040</td>
<td>Legacy Non-Agency RMBS</td>
</tr>
<tr>
<td>1040 – 1050</td>
<td>Evolution in the Securitization Space</td>
</tr>
<tr>
<td>1050 – 1100</td>
<td>Audience Q&amp;A</td>
</tr>
<tr>
<td>1100</td>
<td>Close of Webinar</td>
</tr>
</tbody>
</table>
Introduction

Ian Blance
Managing Director
Voltaire Advisors
Some of the most egregious valuation related problems exposed at investment firms have related to mortgage backed securities and securitized products. These include:

- Morgan Keegan - 2010
- PIMCO - 2016
- Nomura - 2017
- Premium Point - Current

Complex structures and specialist data and knowledge requirements make for an especially opaque and technical market.

This Webinar looks at some of these issues and some options to help resolve them.
Introduction

- Empirasign Strategies will assess the challenges involved in accessing market pricing from the securitized products market, and what can be done to resolve these
- Prytania Solutions will consider some of the key factors that should be taken into account when evaluating prices for structured credit products, and what can be done to increase confidence in these prices
- MountainView Financial Solutions will discuss some of the issues and challenges in dealing with legacy non-agency RMBS, including issues associated with ageing and atrophy, and the situation with regard to settlements and recoveries
- IHS Markit will look at some of the new collateral classes and structures in the securitization market, such as cellphone payments, marketplace lending and agency credit risk transfer
- Questions can be submitted throughout the sessions and will be addressed at the end
Market Data Challenges in Structured Finance

Adam Murphy
Founder and President
Empirareign Strategies LLC
Market Data Challenges

- Unstructured Market Data Buried in Emails
- Fully Automated Parsers Cannot Detect Nuanced Errors
- Limited Overview of Marketplace
- Strive for Impartially Sourced Market Data
We **Source, Clean and Normalize**

Unstructured Market Data into a **Real-Time, Searchable, Online Trade Database**.
Solution: Market Transparency

- Extensive Historical Trade Database
- Independently Sourced Market Data
- Robust & Extensive Validation Algorithms
- Experienced Quality Assurance Team

2016 Index Stats:
- Over 17,914 Bid Lists
- Over 2.1 million Unique Dealer Bid, Offer, Market Runs

www.empirasign.com
Solution: Comprehensive Market Data

Find Bonds Quickly
- Bulk Cusip Search
- Wildcard Search

BWIC Results Include:
- Dealer Level Price Talk
- Trade Color
- Market History

Inventory Results Include:
- Bids
- Offers
- Two-Way Markets
Solution: Find Similar Bonds

<table>
<thead>
<tr>
<th>Bloomberg</th>
<th>Cusip</th>
<th>Desc</th>
<th>Collateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAMU 2005-AR8 2AC2</td>
<td>92922FS41</td>
<td>mez</td>
<td>prime-POA</td>
</tr>
</tbody>
</table>

5 Non-Agency/Alt-A BWIC record(s) 6 Non-Agency/Alt-A Dealer Offer record(s)

Your search returned 5 Non-Agency/Alt-A record(s) from our BWIC Database.

<table>
<thead>
<tr>
<th>C/F</th>
<th>C/F</th>
<th>Coupon</th>
<th>60+</th>
<th>C/E</th>
<th>Price</th>
<th>PxTalk</th>
<th>Trade</th>
<th>Settle</th>
<th>List ID</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>33.5</td>
<td>9.9</td>
<td>1.484</td>
<td>16.3</td>
<td>24.6</td>
<td>2:95.75</td>
<td>2017-06-20</td>
<td>06/23</td>
<td>17062U</td>
</tr>
</tbody>
</table>

Find Similar Non Agency Bonds

Reference Bond

<table>
<thead>
<tr>
<th>C/F</th>
<th>C/F</th>
<th>Cusip</th>
<th>Desc</th>
<th>Collateral</th>
<th>Coupon</th>
<th>60+</th>
<th>C/E</th>
<th>Price</th>
<th>PxTalk</th>
<th>Trade</th>
<th>Settle</th>
<th>Seen?</th>
<th>Breadth</th>
<th>List ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.5</td>
<td>9.9</td>
<td>92922FS41</td>
<td>mez</td>
<td>prime-POA</td>
<td>1.484</td>
<td>16.3</td>
<td>24.6</td>
<td>2:95.75</td>
<td>2017-06-20</td>
<td>06/23</td>
<td>17062U</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similar Bonds We've Seen on BWICs  Similar Bonds Offered

<table>
<thead>
<tr>
<th>C/F</th>
<th>C/F</th>
<th>Cusip</th>
<th>Desc</th>
<th>Collateral</th>
<th>Coupon</th>
<th>60+</th>
<th>C/E</th>
<th>Price</th>
<th>PxTalk</th>
<th>Trade</th>
<th>Settle</th>
<th>Seen?</th>
<th>Breadth</th>
<th>List ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.612</td>
<td>0.148</td>
<td>1269000W9</td>
<td>mez</td>
<td>prime-Viala</td>
<td>1.284</td>
<td>11.4</td>
<td>93-16</td>
<td>offer</td>
<td>2017-05-04</td>
<td>06/14</td>
<td>4</td>
<td>60/2</td>
<td>aurlja</td>
<td>79.89</td>
</tr>
<tr>
<td>5.612</td>
<td>0.148</td>
<td>12865010X</td>
<td>mez</td>
<td>prime-Viala</td>
<td>1.284</td>
<td>11.4</td>
<td>93-16</td>
<td>offer</td>
<td>2017-06-03</td>
<td>06/13</td>
<td>4</td>
<td>60/2</td>
<td>aurlja</td>
<td>79.89</td>
</tr>
<tr>
<td>5.612</td>
<td>0.148</td>
<td>1269000W9</td>
<td>mez</td>
<td>prime-Viala</td>
<td>1.284</td>
<td>11.4</td>
<td>93-16</td>
<td>offer</td>
<td>2017-06-06</td>
<td>06/09</td>
<td>4</td>
<td>60/2</td>
<td>aurlja</td>
<td>79.89</td>
</tr>
<tr>
<td>2.385</td>
<td>2.385</td>
<td>617480H21</td>
<td>mez</td>
<td>prime-S255</td>
<td>1.844</td>
<td>14.3</td>
<td>93-16</td>
<td>offer</td>
<td>2017-06-16</td>
<td>06/21</td>
<td>5</td>
<td>22/1</td>
<td>aim</td>
<td>84.34</td>
</tr>
<tr>
<td>2.385</td>
<td>2.385</td>
<td>617480H21</td>
<td>mez</td>
<td>prime-S255</td>
<td>1.844</td>
<td>14.3</td>
<td>93-16</td>
<td>offer</td>
<td>2017-06-15</td>
<td>06/20</td>
<td>5</td>
<td>22/1</td>
<td>aim</td>
<td>84.34</td>
</tr>
<tr>
<td>2.385</td>
<td>2.385</td>
<td>617480H21</td>
<td>mez</td>
<td>prime-S255</td>
<td>1.844</td>
<td>14.3</td>
<td>93-16</td>
<td>offer</td>
<td>2017-06-14</td>
<td>06/19</td>
<td>5</td>
<td>22/1</td>
<td>aim</td>
<td>84.34</td>
</tr>
<tr>
<td>1.072</td>
<td>0.526</td>
<td>456600DC0</td>
<td>mez</td>
<td>prime-327</td>
<td>3.250</td>
<td>20.9</td>
<td>96</td>
<td>offer</td>
<td>2017-06-19</td>
<td>06/22</td>
<td>2</td>
<td>19/1</td>
<td>aim</td>
<td>90.16</td>
</tr>
</tbody>
</table>
## Solution: Daily & Monthly Recaps

### Empirisign Recap Report for 2015-05-04

3 out of your portfolio bond(s) saw BWIC action in the previous trading session. 10 of your portfolio bond(s) were offered by the dealers we track in the previous trading session.

<table>
<thead>
<tr>
<th>Ccy</th>
<th>Dk (MM)</th>
<th>Ef (MM)</th>
<th>exp/sim</th>
<th>Bloomberg Ticker</th>
<th>price</th>
<th>spread</th>
<th>curve</th>
<th>color</th>
<th>Price Talk</th>
<th>basic</th>
<th>Time</th>
<th>dealer</th>
<th>tags</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD</td>
<td>1,500</td>
<td>1,500</td>
<td>31876GAD01</td>
<td>STACR 2013-0N2 M2</td>
<td>154659BA</td>
<td>1451200</td>
<td>Offer</td>
<td>SHY</td>
<td>154659BA</td>
<td>1451200</td>
<td>cas</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/31876GAD01">www.empirisign.com/tick/31876GAD01</a></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>1,500</td>
<td>1,500</td>
<td>39711KAF01</td>
<td>CAS 2014-0C2 M3</td>
<td>159545BA</td>
<td>1451200</td>
<td>Offer</td>
<td>SHY</td>
<td>159545BA</td>
<td>1451200</td>
<td>cas</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/39711KAF01">www.empirisign.com/tick/39711KAF01</a></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>2,000</td>
<td>2,000</td>
<td>12026R4ZM7L</td>
<td>IPWR-L 2026-01L8</td>
<td>20/80</td>
<td>Offer</td>
<td>SHY/N</td>
<td>12026R4ZM7L</td>
<td>1451200</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/12026R4ZM7L">www.empirisign.com/tick/12026R4ZM7L</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>0,250</td>
<td>0,250</td>
<td>32128BVD1H2</td>
<td>LUSOS 2016-0L12</td>
<td>210-04</td>
<td>Offer</td>
<td>SHY/N</td>
<td>32128BVD1H2</td>
<td>1451200</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/32128BVD1H2">www.empirisign.com/tick/32128BVD1H2</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>0,200</td>
<td>0,200</td>
<td>090929FM2</td>
<td>JPMCC 2006-0C8B A4</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/090929FM2">www.empirisign.com/tick/090929FM2</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>3,999</td>
<td>3,999</td>
<td>31934S6A6</td>
<td>CSME 2006-0C6 A4</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/31934S6A6">www.empirisign.com/tick/31934S6A6</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>3,500</td>
<td>1,920</td>
<td>125115AE2</td>
<td>CO 2006-0C2 A4</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/125115AE2">www.empirisign.com/tick/125115AE2</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>1,500</td>
<td>1,500</td>
<td>073889NA56</td>
<td>BOS05 2006-0C4 A4</td>
<td>104,814</td>
<td>155</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/073889NA56">www.empirisign.com/tick/073889NA56</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>0,100</td>
<td>0,100</td>
<td>51994A304</td>
<td>PHG 2006-0C1 A4</td>
<td>101-16</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/51994A304">www.empirisign.com/tick/51994A304</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>3,000</td>
<td>3,000</td>
<td>3011774P8</td>
<td>CSME 2006-0C7 A1AM</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/3011774P8">www.empirisign.com/tick/3011774P8</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>1,100</td>
<td>1,100</td>
<td>30624FA657</td>
<td>OSMS 2011-0G2 A4</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/30624FA657">www.empirisign.com/tick/30624FA657</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>6,726</td>
<td>6,726</td>
<td>32154VAD03</td>
<td>CSME 2007-0C2 A5</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/32154VAD03">www.empirisign.com/tick/32154VAD03</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>5,000</td>
<td>5,000</td>
<td>215488V81</td>
<td>CSME 2007-0C7 A1AM</td>
<td>120</td>
<td>Offer</td>
<td>SHY/N</td>
<td>demo</td>
<td>demo</td>
<td>demo</td>
<td><a href="http://www.empirisign.com/tick/215488V81">www.empirisign.com/tick/215488V81</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Evaluated Pricing
On-Demand

Garry McDougall
Head of Solutions
Marketing
Prytania Solutions
Evaluated Pricing On-Demand
## Snapshot of Portfolio Dashboard

<table>
<thead>
<tr>
<th>Security</th>
<th>ISIN</th>
<th>Asset Class</th>
<th>Snapshot</th>
<th>Latest Price Date</th>
<th>Risk Score</th>
<th>Evaluated Price</th>
<th>Evaluated DM</th>
<th>Bond Summary</th>
<th>Bond History</th>
<th>Valuation Report</th>
<th>Cashflows</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIREM 2006-1X 2B2</td>
<td>XS0084193264</td>
<td>UK BTL RMBS</td>
<td>UK BTL RMBS</td>
<td>2016-05-04</td>
<td>102.58</td>
<td>94.01</td>
<td>126.18</td>
<td>Bond Summary</td>
<td>Bond History</td>
<td>Valuation Report</td>
<td>Cashflows</td>
</tr>
<tr>
<td>AIREM 2006-1X 2C2</td>
<td>XS0084193787</td>
<td>UK BTL RMBS</td>
<td>UK BTL RMBS</td>
<td>2016-05-04</td>
<td>150.20</td>
<td>96.71</td>
<td>202.16</td>
<td>Bond Summary</td>
<td>Bond History</td>
<td>Valuation Report</td>
<td>Cashflows</td>
</tr>
<tr>
<td>ALBA 2005-1 B</td>
<td>XS0235713162</td>
<td>UK NC RMBS</td>
<td>UK NC RMBS</td>
<td>2016-05-04</td>
<td>130.37</td>
<td>83.64</td>
<td>307.69</td>
<td>Bond Summary</td>
<td>Bond History</td>
<td>Valuation Report</td>
<td>Cashflows</td>
</tr>
<tr>
<td>ALBA 2006-1 E</td>
<td>XS02554834301</td>
<td>UK NC RMBS</td>
<td>UK NC RMBS</td>
<td>2016-05-04</td>
<td>433.79</td>
<td>6.48</td>
<td>526.30</td>
<td>Bond Summary</td>
<td>Bond History</td>
<td>Valuation Report</td>
<td>Cashflows</td>
</tr>
<tr>
<td>AYT 11 B</td>
<td>ES0038541016</td>
<td>Spanish RMBS</td>
<td>Spanish RMBS</td>
<td>2016-05-04</td>
<td>308.12</td>
<td>80.99</td>
<td>457.93</td>
<td>Bond Summary</td>
<td>Bond History</td>
<td>Valuation Report</td>
<td>Cashflows</td>
</tr>
</tbody>
</table>
Pricing Entire Asset Classes Every Day

Comparable assets are key when determining the valuation of a security.

In order to define what a comparable asset is, we use machine learning to find which credit fundamentals of each asset class contribute to the perceived market risk. We can then plot risk against DM for all observed securities.

Since our learning algorithms calculate risk based on pure credit fundamentals, we can derive a PSL Risk Score for every security. From there, we can interpolate and extrapolate an evaluated DM for every security.
Pricing thousands of securities every day creates a lot of data. We feedback this data to you to provide transparency and ensure confidence in our pricing of your securities.

On the web, you can view the historical evaluated prices for each bond and track anonymised direct observations that have contributed to the valuations.
PSL Depth Score: Defining Confidence

In order to define the confidence of our evaluated price and provide a metric on liquidity, we have developed the PSL Depth Score.

The PSL Depth Score ranges from 10 – the most liquid securities, down to 1 – the least liquid.

The PSL Depth Score is based on factors that include:

- Number of direct and indirect observations.
- How recent these observations are.
- The DM range of observations.
- Close comparable indirect observations.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>More than two dealers; bids and offers in last two business days; spread range &lt;10% of PSL Risk Score.</td>
</tr>
<tr>
<td>9</td>
<td>More than one dealer; bids in last two business days; spread range &lt;15% of PSL Risk Score.</td>
</tr>
<tr>
<td>8</td>
<td>More than one dealer; bids in last five business days.</td>
</tr>
<tr>
<td>7</td>
<td>Direct observations in last five business days.</td>
</tr>
<tr>
<td>6</td>
<td>Direct observations in last thirty days.</td>
</tr>
<tr>
<td>5</td>
<td>&gt;5 indirect observations within PSL Risk Score +/- 5%; 80% of observations within spread range &lt;10% of PSL Risk Score.</td>
</tr>
<tr>
<td>4</td>
<td>&gt;5 indirect observations within PSL Risk Score +/- 10%, within last two business days.</td>
</tr>
<tr>
<td>3</td>
<td>&gt;5 indirect observations within PSL Risk Score +/- 15%, within last five business days</td>
</tr>
<tr>
<td>2</td>
<td>&gt;5 indirect observations within PSL Risk Score +/- 30%</td>
</tr>
<tr>
<td>1</td>
<td>Worst score - no requirements.</td>
</tr>
</tbody>
</table>
Legacy Non-Agency RMBS

Nathan Callard
Managing Director
Analytics
MountainView Financial Solutions
Pricing Mortgage Bonds & Structured Credit
Legacy Non-Agency RMBS

Nate Callard, CFA
Managing Director, Analytics

June 21, 2017
Legacy U.S. Non-Agency RMBS - Size of the Market

> Peak balance mid-2007 ~ $2.3 Trillion
> Current balance ~ $450 Billion

Some Valuation Issues Related to Aging/Atrophy:
> Clean-up Calls
> Odd-lots
> Liquidity
Valuation Issues Related to Aging/Atrophy

Clean-up calls

> Most deals have optional termination when collateral factor < 10%
> Call right generally with residual holder and/or servicer but can be tradeable
> Generally calls for paying off bondholders at par

> Valuation Impacts:
  > Given distressed collateral, deals calls were not an issue for many years.
  > Calls now becoming more prevalent, first in Prime, fixed collateral; now broadening to non-prime, floating
  > Obvious risks for premium bonds, IOs
  > Do previous losses need to be paid back?

Odd-lot Discounts

> Vendor rule of “one-price”
> Odd by factor
> “what not to do”
Valuation Issues Related to Aging/Atrophy

Liquidity Issues: lower liquidity = less transparency

TRACE*

> (*for odd-lots)

> Individual trade reporting for non-agency RMBS went into effect March 20, 2017

> Reporting required for trades <$1MM size

> More limited reporting for >$1MM trades

> What can we learn?
Generally:

> Collateral was sold into RMBS deals with representations and warranties from the seller regarding underwriting.

> After the credit crisis, trustees under their fiduciary duty to bondholders sued originator/sellers for breaches of reps and warrants.

> Bulk settlements are/were negotiated between sellers and trustees representing multiple deals:
  > ResCap: first portion distributed 2014, future distributions when funds available from estate
  > Countrywide: mostly distributed mid-2016 (some hold-outs)
  > Citi: distributed late 2016
  > JPM: agreed to settlement still in legal approvals
  > Lehman: recent settlement agreed to by large investors, objections from some smaller investors, will be subject to available funds from the estate
  > WAMU/FDIC: Still faces objections from investors

> Valuation considerations:
  > Single trust settlements and general availability of information
  > Cash allocation questions and model risk
  > Discount rates?
SEC reportedly focused on fund valuations

[ Bloomberg May 11, 2017 ]

Hedge Funds Are Facing a U.S. Criminal Probe Over Bond Valuations

"... Having prosecuted traders who lied to customers about bond prices, the government is now scrutinizing hedge funds that allegedly solicited bogus price quotes from brokers... "

MountainView Financial Solutions
Nate Callard, CFA
Managing Director, Analytics
ncallard@mviewfs.com
Evolution in the Securitization Space

Matthew Fiordaliso
Head of Securitized Products & Municipal Bond Pricing
IHS Markit
Evolution in the Securitization Space
Emerging Securitization Types

- Cell Phone Payment Plan
- Marketplace/P2P Lending
- Agency Credit Risk Transfer
Payment Plan Securitization

- July 2016
  - Verizon issues first public debt offering backed by smartphone installment plans
  - $1.169bn deal comprised of three investment-grade debt tranches

- November 2016-March 2017
  - Verizon issues two additional deals at slightly wider levels
  - Carrier solidifies presence in ABS space, securitizes on quarterly schedule

- Today
  - $3.857bn in par value outstanding across three Verizon deals, nine investment-grade tranches
  - Preliminary reports show a $1.3bn deal closing on June 20
Characteristics of Payment Plan ABS

• Two-year revolving period followed by sequential amortization
• Early amortization triggers tied to reinvestment period delinquency and reserve fund balance
• Overcollateralization and reserve fund present at issuance
• Significant dealer sponsorship, particularly in front-pay tranches
• Senior bonds have an IHS Markit liquidity score of 1 or 2
• Trades are actively published to TRACE
Monthly Unique Quotes By Tranche

<table>
<thead>
<tr>
<th>Tranche</th>
<th>Total Unique Quotes</th>
<th>Average Unique Quotes (per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1,049</td>
<td>50</td>
</tr>
<tr>
<td>B</td>
<td>110</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>133</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: IHS Markit
Marketplace/P2P Lending Securitization

- Securitization of loans sourced via online platforms (SoFi, Prosper, Lending Club, etc.)
- Issuance topped $3bn in Q1 2017, bringing cumulative par value outstanding to $18bn across 80 deals
- Some bonds are rated, but not primarily by the big three agencies
- Sequential pay structures – some deals issuers (Springleaf, OneMain) build in reinvestment periods
- Credit delinquencies and charge offs have been elevating over the past year, leading to tighter underwriting criteria in more recent deals

Source: Bloomberg, PeerIQ
Monthly Market Activity

- Quotes activity varies highly by issuer, particularly with consumer loan securitizations
- More active shelves tend to see the bulk of dealer activity and represent the majority of TRACE color

Source: IHS Markit
Agency Credit Risk Transfer

- Agency credit risk transfer (CRT) bonds are mortgage-backed securities issued off the Freddie Mac Structured Agency Credit Risk (STACR) shelf and Fannie Mae Connecticut Avenue Securities (CAS) shelf.
- Created in 2013, CRT securities allow GSEs to shift credit risk associated with conforming residential mortgage loans to private investors.
- The mortgages that form the collateral basis of a CRT deal are referred to as the ‘Reference Pool’:
  > The Reference Pool is a group of loans recently securitized into Agency MBS by the GSE.
  > GSEs pay into the CRT deal contingent upon the performance of the Reference Pool.
  > Cashflows may not perfectly mimic collateral performance – some deals have fixed severities while some reflect actual losses.
Fannie and Freddie retain the most senior slice of the capital structure, along with portions of mezzanine and subordinate risk tranches. The remaining portions of subordinate tranches are sold to private investors. Tranches are paid sequentially, with coupons indexed off of one-month LIBOR. NAIC designations and recent ratings upgrades and NAIC assessments have driven a wider investor base into the space, tightening spreads and stimulating new issuance.
Thank You!

- Participants will receive a copy of the slide deck and a recording of the Webinar tomorrow.

- This Webinar is part of our VIVA program of fund valuation initiatives throughout 2017 – more details can be found here:

  http://www.voltaireadvisors.com/viva.html

- The next release is our Valuation Risk Review #3 – Valuation of Alternative Assets – on June 29th
Contact Us

Voltaire Advisors LLP

14 Wall Street No.1 Poultry
New York London
NY 10002 EC2R 8JR
USA UK

1-800-317-1932
info@voltaireadvisors.com
www.voltaireadvisors.com