The Single Security Initiative Conference
Hosted by: Fannie Mae and Freddie Mac
May 14, 2018
Intercontinental Hotel-Times Square
New York City
Industry Testing and External Milestones

- Nick Botta
  - Executive Director, MBS Product Management
- Stephanie Milner
  - Director, Capital Markets & Securitization
- Barbara Pak
  - VP, Securitization Policy & Investor Relations
Industry testing is a critical component of Market Readiness for the Single Security Implementation in 2019. There will be several opportunities to test – please take advantage of ALL that are applicable to your organization!

- **Exchange process testing** via Dealer Direct – Q3 2018
  - Dealer opportunity for training and testing the entry of exchange transactions in Dealer Direct’s Customer Testing Environment (CTE)

- **Disclosure testing** for new formats and distribution mechanism – Q3 2018
  - Key data vendors* test with aligned Single Security formats (already in use by Freddie Mac)…
  - …and new distribution methods via the Common Securitization Platform

- **Vendor testing** with customers
  - We will publish what we know as we know it, but check with your vendors for their schedules

- **Single Security Tabletop Exercise** – early Q4 2018
  - Opportunity to walk through key scenarios in a Business Continuity Planning (BCP)-type tabletop “live exercise”

* Only a small subset of vendors will test directly with CSS
## Vendor Testing Timeline – to be expanded as information is confirmed

<table>
<thead>
<tr>
<th>Freddie Mac Key Milestones</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td><strong>FRE Mirror DB Changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FNM Agency Files – Convert-Back</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FNM SS DB Changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eMBS</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tradeweb</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tradeweb client testing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UMBS/Supers forward trading opens</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exchange opens</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6/3: Single Security Go-Live</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FNM/UMBS, PCGLD on Tradeweb screens</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FNM, PCGLD disappear from screens</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thomson Reuters</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Implement New FRE Prefixes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sync Reuters ID Codes (RIC) w/ Market</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Update Datascope Mortgage &amp; Factor Data Dictionaries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UMBS RIC starts rolling (90 days forward)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SS TBA &amp; new specified pool formats available</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Design/Development**
- **UAT w/ clients**
- **Parallel testing**
Single Security Tabletop Exercise Overview

- The industry has indicated an interest in an interactive walk-through to ensure market readiness as we approach Single Security critical milestone dates.

- As a result, Freddie Mac and Fannie Mae would like to conduct an active, live exercise with industry participants to simulate end-to-end execution of key securities-related activities such as a TBA Trade or Freddie Mac's PC Exchange.

- The outputs of the exercise will be shared with the market in 4Q 2018 to help ensure industry-wide understanding of impacts and readiness for the implementation of the UMBS.

- We would like market participant volunteers to join us in developing the Single Security tabletop live exercise.
Single Security Tabletop Exercise Details

**Why**
Inform the market of what is changing
Help participants better understand their upstream and downstream impacts
Identify potential issues or fail points which can be shared with the broader industry

**Who**
Investors, Broker/Dealers, Custodians, Seller/Servicers, Third Party Providers

**How**
Starting in July, convene a small monthly working group to discuss process, assess impacts, and contribute to the development of the exercise
Freddie Mac and Fannie Mae will facilitate
Leverage stakeholders to describe their processes, visual examples, sample inputs and outputs

**When/Where**
*Working Group Sessions:* Monthly via phone/webinar
*Live Exercise:* Early 4Q 2018 in New York, Location TBD
<table>
<thead>
<tr>
<th>Single Security Tabletop Exercise Scenarios</th>
<th>Activities may include:</th>
</tr>
</thead>
</table>
| **UMBS Forward Sale/Pool Formation**      | - Hedging and Pipeline Management  
- Forward Pricing  
- Forward Sale / Trade  
- Loan Delivery / Pool Formation  
- Forward Trade Settlement |
| **End to end TBA Trade** from Price Discovery to Pool Settlement of a 55-day UMBS** | - Price Discovery  
- TBA Trade Comparison  
- TBA Netting  
- Pool Allocation  
- Pool Comparison and Pool Netting  
- Payment/Settlement  
- Fail Trade |
| **End-to-end Exchange** process of a Freddie Mac 45-day Gold PC for a new 55-day UMBS (TBA) or Freddie Mac MBS (non-TBA)** | - Using the float compensation tool on Freddiemac.com  
- Booking an Exchange transaction  
- Settling an Exchange transaction  
- Fails, partial settlement and rebooking |
| **Dollar Roll/Swap** : exchange of a Freddie Mac 45-day Gold PC for a 55-day UMBS / FRE MBS via a “swap” embedded within a Dollar Roll** | - Investor offers 45-day Gold PCs in the front month, and receives 55-day UMBS / FRE MBS in return in the back month |
| **Formation/Issuance of a Commingled Re-securitization** (Supers and REMICs)** | - Eligibility and pooling rules for commingling  
- Formation of commingled Supers  
- Formation of commingled REMIC bonds |
Tabletop Exercise Exchange Example

**Initiate exchange request** → **Book exchange and receive confirmation** → **Record exchange buy/sell trades in trade booking system** → **Deliver 45d to FRE** → **Receive 55d mirror** → **Perform Accounting and Tax Reporting** → **Exchange complete**

**Investor** representative describes:
- Identifying positions for exchange
- Evaluating float compensation through Freddie Mac tool
- Communicating exchange instructions to Dealer

**Dealer** representative describes:
- Receiving exchange instructions from Investor
- Inputting exchange requests into Dealer Direct

**Freddie Mac** representative describes:
- Processing exchange request in Dealer Direct
- Sending transaction confirmation email to Dealer
- Generating expect file

**Investor & vendor** jointly describe:
- Recording buy/sell transaction in trade booking system(s)
### Testing Schedule

#### Business Process and Procedure Updates
- Complete impact assessment on processes and procedures
- Test and Implement updates

#### Exchange Activities
- Identify exchange population and consider creating Giants to consolidate
- Test with exchange platform
- Develop exchange plan and execution calendar

#### Investment Guideline Updates
- Communicate with client base and identify population requiring change
- Update client investment guidelines
- Input guideline updates and test in appropriate systems

#### System Updates
- Complete requirements, design, and development for any system changes
- Test system changes
- Deploy system changes

#### Third-Party Vendor System Updates
- Determine which third-party software and vendor systems need updating
- Coordinate, validate, and test vendor systems to confirm readiness
- Deploy system changes

---

**2018**
- Q1: New Issuance Begins 6/3/2019
- Q2: First combined UMBS Reg settlement will take place in June 2019

**2019**
- Q1: UMBS Forward Trading Begins
- Q2: New Issuance Begins 6/3/2019

---

<table>
<thead>
<tr>
<th>Year</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>JUL&lt;sup&gt;1&lt;/sup&gt;</td>
<td>AUG&lt;sup&gt;1&lt;/sup&gt;</td>
<td>SEP&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td>JUL&lt;sup&gt;2&lt;/sup&gt;</td>
<td>AUG&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
For more information or to participate please contact:

Barbara Pak  
Vice President  
Freddie Mac  

703-903-3393 (Office)  
Barbara_Pak@Freddiemac.com