



# **Single Security Program Exchange and Float Compensation Proposal**

**Prepared by Freddie Mac**

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## Executive Summary

In order to expand market liquidity for holders of 45-day Freddie Mac mortgage participation certificates (including Giant PCs, hereafter “PCs”) after the transition to the Single Security, Freddie Mac will create a mechanism to exchange 45-day PCs for 55-day securities ultimately backed by the same single-family mortgage loans. It is anticipated that the exchange mechanism will be in the form of a standing exchange offer from Freddie Mac to holders of 45-day PCs. Freddie Mac expects that the key details of the proposed exchange offer will be as follows:

- The proposed exchange offer will be open to holders of all 45-day PCs, including both TBA-eligible and non-TBA eligible PCs, except for those that are fully committed to one or more resecuritizations.
- The 55-day securities that will be received by holders will have the same key security characteristics as their 45-day counterparts insofar as those characteristics derive from the underlying mortgage loans.
- The exchange offer will commence on or prior to the Single Security Implementation Date, and will remain open thereafter for the foreseeable future.
- The exchange offer will be at the option of holders and Freddie Mac will not charge holders any exchange fee to conduct an exchange.
- Freddie Mac will compensate holders for the approximate fair value of the additional 10 days of payment delay. The float compensation value will be determined using an “even Option-Adjusted Spread (OAS)” approach, leveraging models and prices used by holders.
- Freddie Mac plans to seek advice from regulatory agencies and outside counsel on the accounting and tax implications of exchange transactions.
- Holders will submit exchanges through an approved Freddie Mac Giant dealer who will process the exchange transactions through an online portal, Freddie Mac Dealer Direct<sup>SM</sup>.
- Freddie Mac will disclose all exchange activity to the market on a daily basis in a way that will allow investors to be able to determine precisely what securities have been exchanged and how much 45- and 55-day supply exists for all cohorts.
- Freddie Mac will also make available a tie-out table with current aggregate 45- and 55-day supply, by coupon.

## Proposed Exchange and Float Compensation Process

### *Overview of Exchange Offer*

As described in Appendix E to the May 2015 FHFA publication [An Update on the Structure of the Single Security](#) (The “2015 Single Security Update”), Freddie Mac will provide a mechanism for 45-day PCs that are eligible to be delivered into “to-be-announced” (TBA) contracts to be exchanged for comparable “mirror” 55-day Uniform Mortgage Backed Securities (UMBS) ultimately backed by the same pool of mortgage loans. The exchange offer will also be open to holders of non-TBA 45-day PCs who, upon exchange of those securities, will receive 55-day non-TBA eligible Freddie Mac MBS, also ultimately backed by the same mortgage loans. All legacy 45-day PCs, or portions thereof, will be eligible for exchange, except for those that are fully committed to one or more resecuritizations. Neither interests in real estate mortgage investment conduits (REMICs) nor 75-day PCs backed by adjustable-rate mortgages (ARM) loans will be eligible for exchange. As of the June 2016 factor release, there were

approximately \$1.25 trillion in outstanding unpaid principal balance (UPB) of PCs that would be eligible for exchange.

The exchange transaction will be initiated at the option of holders and will not be mandatory. The exchange offer will commence on or prior to the Single Security Implementation Date, which will coincide with Release 2 of the Common Securitization Platform (CSP) in Q2 2019. Freddie Mac expects that the exchange offer will remain open thereafter for the foreseeable future.

Freddie Mac expects that it will not charge holders any exchange fee to conduct an exchange transaction and will pay holders the approximate fair value of the additional ten days of payment delay. This “float compensation” received by holders will be based on a schedule of float compensation rates that will be calculated by Freddie Mac. The float compensation rates will be published on the Freddie Mac web site and will be updated as market conditions warrant.

Holders who seek to do an exchange will need to submit the exchange transaction through an approved Freddie Mac Giant dealer. Dealers will process the exchange transactions through an online portal, Freddie Mac Dealer Direct. The dealers will then wire the securities to be exchanged to Freddie Mac and Freddie Mac will return an equal amount of original par of the corresponding 55-day security and the float compensation payment.

Freddie Mac decided to leverage these existing dealer relationships to conduct the exchange, rather than allowing investors to conduct exchanges directly with Freddie Mac, in order to streamline the process and eliminate the need to establish individual counterparty relationships with thousands of individual investors and their sub-accounts. Freddie Mac has already conducted substantial due diligence regarding these dealers, including the establishment of custodial bank arrangements and counterparty agreements, and the additional effort required to perform due diligence with all investors who want to conduct an exchange transaction could result in delays in the exchange process.

Freddie Mac plans to seek advice from regulatory agencies and outside legal counsel on the tax and accounting implications of exchange transactions. Holders should consult their own tax counsel and independent accountants for specific advice related to their individual circumstances regarding these transactions.









### ***What You Will Receive upon Exchange – Proposed Details of Mirror Securities***

As summarized in Freddie Mac’s [Update on the Development of Proposed Legacy PC Exchange Program](#) (July 2016), in order to facilitate the proposed exchange offer, Freddie Mac will create 55-day mirror securities for all exchange-eligible 45-day PCs. These mirror securities will ultimately be backed by the same pool of mortgage loans and they will replicate the disclosures and cash flows of the original PCs. Key security characteristics, such as UPB, weighted average coupon (WAC) and weighted average loan age (WALA) will be identical between the two securities. In addition, the original par value of the two securities will be identical, meaning that at the time of their creation the mirror securities will have a factor of less than 1. However, the new mirror securities will have new CUSIPs, prefixes and pool numbers, and the issuance date of the new security will be the date the 55-day mirror security is created. Single Security prefixes will follow the Fannie Mae convention for TBA securities.

For disclosure purposes, these mirror securities will be structured as single-pool Giants backed by the original 45-day PC. As with Giants, loan level disclosures will not be available for the mirror securities and you will need to look to the original 45-day security in order to access loan level disclosures.

Most mirror securities will be created by Freddie Mac and broadcast with the Federal Reserve Bank of New York at least 4 months in advance of Single Security Implementation.<sup>1</sup> These securities will appear on the Freddie Mac Daily New Issue file the day they are created. These securities will be held in a Freddie Mac exchange account with the Fed until an exchange transaction is settled and thus will not increase the aggregate supply of securities issued and outstanding in the market.<sup>2</sup>

**Figure 1: Exchange Example**

	Prior to Single Security Issuance and Trading		Single Security Implementation		One day after Single Security Implementation		Two days after Single Security Implementation	
	55-day mirror securities created		First day of issuance of Single Security		Investor A exchanges \$4 million of original par of security 123		Investor B exchanges remaining \$6M original par of security 123	
	Security 123	Mirror security 789	123	789	123	789	123	789
								
	Disclosures		No change to legacy PCs until an exchange takes place		Disclosures:		Disclosures:	
Original Par	\$10 million	\$10 million			\$10M	\$10M	\$10M	\$10M
Coupon	3	3			3	3	3	3
WAC	3.75	3.75			3.75	3.75	3.75	3.75
Factor	0.75	0.75			0.75	0.75	0.75	0.75
Tradable Supply	\$7.5M	\$0			\$4.5M	\$3M	\$0M	\$7.5M
Outstanding UPB	<b>\$7.5M</b>		<b>\$7.5M</b>		<b>\$7.5M</b>		<b>\$7.5M</b>	

When a holder initiates an exchange transaction, the holder's securities dealer will deliver the 45-day PC to Freddie Mac through Freddie Mac's Dealer Direct Portal and in return will receive the corresponding 55-day security, or a pro-rata portion thereof, for delivery to the holder's account. Following the exchange, the 45-day PC will be placed in the Freddie Mac exchange account at the Fed, so that the exchange transaction will not impact the aggregate supply of securities outstanding.<sup>3</sup> Holders that exchange multiple pieces of the same PC over time will receive portions of the same corresponding 55-day security in return.

<sup>1</sup> Before the Single Security Implementation Date, Freddie Mac will do a catch-up issuance of mirror securities to reflect any new issuance of 45-day PCs in the months leading up to that Single Security Implementation. After the Single Security Implementation Date, Freddie Mac may need to issue additional mirrors if holders form new 45-day Giants from legacy 45-day PCs (The full extent of allowable resecuritization options available to holders of 45-day securities after Single Security Implementation has not yet been finalized).

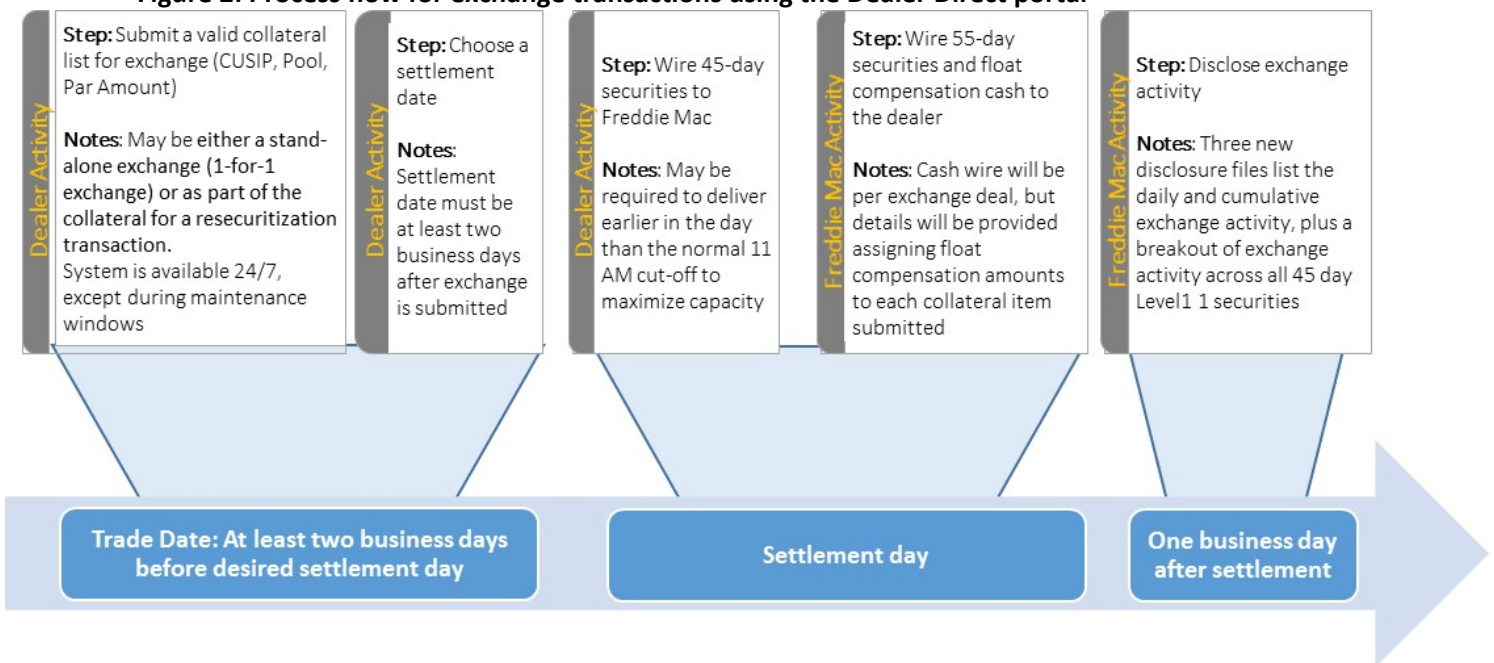
<sup>2</sup> This is similar to the issuance of Modifiable and Combinable REMIC (MACR) classes corresponding to newly issued REMICs. The MACR classes are created at the same time as the REMIC and are backed by the same assets, but are held by Freddie Mac until an exchange takes place and do not add to the total amount of securities issued and outstanding.

<sup>3</sup> This is also similar to a MACR exchange, which does not have any impact on aggregate supply

## Proposed Dealer Direct and Exchange Process Detail

Investors who wish to conduct an exchange transaction will need to do so through a member of Freddie Mac’s Giant dealer group, much like they do when they wish to conduct a Giant transaction today. These dealers will then submit the exchange transaction through an online portal, Freddie Mac Dealer Direct. Dealer Direct is currently being developed by Freddie Mac and will streamline transaction processing, automating manual processes, including Freddie Mac Giant formation. During the third quarter of 2016 the Dealer Direct technology was rolled out to a select group of dealers for purposes of pilot testing. Those dealers are currently utilizing the online portal to form Giants and submit collateral. Freddie Mac expects to roll this functionality out to the remaining Giant dealers during the fourth quarter of 2016. This initial rollout is intended to familiarize dealers with the new portal and its related technology before the exchange functionality becomes available.

**Figure 2: Process flow for exchange transactions using the Dealer Direct portal**



As can be seen from Figure 2 the exchange process will begin on the “trade date” which will be at least two business days before the desired settlement date. On the trade date the dealer will log in to Dealer Direct and set up the transaction by choosing a settlement date and uploading a collateral file for the pools to be exchanged. As seen in Figure 3, the dealer will be able to choose from available settlement dates, ranging from two business days after the trade date up until the end of the following month.

The dealer will upload a collateral file with the pools to be exchanged. The exchange collateral file format will be identical to the Giant collateral file format and will include the CUSIP and pool number of all pools to be exchanged as well as the amount of original par to be exchanged for each security. The dealer will have the opportunity to review a summary of the exchange, which will include the collateral to be exchanged, the CUSIP and pool number of the 55-day security to be received and the float compensation value for each security, quoted in ticks (see Figure 4). The dealer will then have to confirm these details and will receive a confirmation email with the details of the exchange transaction. Dealers will have the ability to edit or cancel the exchange transaction in Dealer Direct up until close-of-business 2 business days before the selected settlement date.

Figure 3: Dealer Direct – Scheduling an Exchange<sup>4</sup>

Transactions Pricing Info Reports User Administration Support

Remaining time: 1 : 44 : 48

## Exchange

1 Upload an exchange file      2 Select settlement date      3 Review exchange details

Click to select an exchange file to upload      Enter the number of Securities you wish to Exchange:       Check Availability

September 2015							October 2015						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5					1 Availability: 0	2 Availability: 0	3
6	7	8	9	10	11	12	4	5 Availability: 0	6 Availability: 0	7 Availability: 0	8 Availability: 5000	9 Availability: 5000	10
13	14	15 Availability: 4968	16 Availability: 4964	17 Availability: 4993	18 Availability: 4969	19	11	12	13 Availability: 5000	14 Availability: 5000	15 Availability: 5000	16 Availability: 5000	17
20	21 Availability: 5000	22 Availability: 5000	23 Availability: 5000	24 Availability: 5000	25 Availability: 4492	26	18	19 Availability: 5000	20 Availability: 5000	21 Availability: 5000	22 Availability: 5000	23 Availability: 5000	24
27	28 Availability: 5000	29 Availability: 5000	30 Availability: 5000				25	26 Availability: 5000	27 Availability: 5000	28 Availability: 5000	29 Availability: 5000	30 Availability: 5000	31

Figure 4: Dealer Direct – Trade Confirmation

Transactions REMIC Tools Pricing Reports Support

Remaining Time: 1 : 43 : 07

## Exchange

1 Upload an Exchange File      2 Select Settlement Date      3 Review Exchange Details

Transaction ID: 00108      Current User: CreditSuisse FullAccess  
 Trade Date/Time: September 20th 2016, 5:24 PM      Dealer: Credit Suisse  
 Number of Collateral: 6      Settlement Date: September 30th 2016  
 Price Grid in Effect: v61      Cutoff Time for Providing Collateral: 11:00 AM  
 Submitter: CreditSuisse FullAccess      Total Float Compensation (\$): 52,772.82

45 Day Securities to Deliver				55 Day Securities to Be Received		Pricing Information								
Exchange ID	Pool Number	CUSIP	Par Amount (\$)	Pool Number	CUSIP	Factor	Base (Ticks)	Loan Bal (Ticks)	FICO (Ticks)	LTV (Ticks)	WALA (Ticks)	Total (Ticks)	Float Comp (\$)	Comments
00001425	A00001	CUSIP4511	5,000,000.00	C00002	CUSIP5512	0.74328162	2.00	0.50	0.00	0.50	0.50	3.50	4,064.82	
00001426	A00003	CUSIP4513	300,000.00	C00003	CUSIP5513	0.53872196	2.25	0.00	-0.50	-0.50	0.00	1.25	63.13	Sample data
00001427	A00001	CUSIP4511	30,000,000.00	C00002	CUSIP5512	0.74328162	2.00	0.50	0.00	0.50	0.50	3.50	24,388.93	
00001428	A00003	CUSIP4513	4,000,000.00	C00003	CUSIP5513	0.53872196	2.25	0.00	-0.50	-0.50	0.00	1.25	841.75	
00001429	A00001	CUSIP4511	20,000,000.00	C00002	CUSIP5512	0.74328162	2.00	0.50	0.00	0.50	0.50	3.50	16,259.29	Sample comment
00001430	A00003	CUSIP4513	34,000,000.00	C00003	CUSIP5513	0.53872196	2.25	0.00	-0.50	-0.50	0.00	1.25	7,154.90	

I have read and agree to the [terms of the Exchange Circular](#)

Confirm      Discard and Cancel Transaction

<sup>4</sup> Dealer Direct is currently under development, so this screen format is subject to change. Values are for illustrative purposes only.

Dealers will also be able to execute a resecuritization (i.e., create Giants from non-TBA collateral or Supers<sup>5</sup> composed of UMBS) at the same time as the exchange, as part of the same transaction.

On the settlement date the dealer will wire the 45-day securities to Freddie Mac and will receive a return wire with the 55-day security and a second wire with the float compensation payment.

#### Freddie Mac Approach to Exchange Capacity

Freddie Mac will be prepared for large volumes of securities to go through the exchange process. However, there may be some technological and counterparty constraints that could limit the capacity of the exchange mechanism. As part of its preparations for the Single Security Implementation Date, Freddie Mac is launching a two-pronged approach to understanding capacity demands and to provide maximum exchange capacity to the market.

First, Freddie Mac is actively seeking input from market participants to understand how and when they may wish to exchange 45-day securities for 55-day securities and has already talked to multiple parties about this topic. Freddie Mac continues to seek information and welcomes input from all parties to gain a clearer picture of the anticipated demand for exchange capacity.

Second, Freddie Mac will leverage Dealer Direct to manage exchange volumes as the system can be configured to allow more or fewer exchanges based on the time of the month, if necessary. Certain hard and fast capacity limits may be identified, but the system is expected to be able to process no fewer than 10,000 exchange transactions per day.

Freddie Mac is also trying to understand counterparty capacity in performing exchanges. Freddie Mac has discussed this topic with dealers and is working to identify the best approach to meet their needs on behalf of the investor community.

Feedback regarding these concerns can be sent to [single\\_security@freddiemac.com](mailto:single_security@freddiemac.com). As more information is received from the market Freddie Mac will provide more detailed expectations regarding any potential capacity limits.

#### ***Proposed Approach to Float Compensation***

In the 2015 Single Security Update Freddie Mac indicated its intent to compensate holders for the approximate fair value of the additional 10 days from the mortgage payment due date to the receipt of payments in the new securities when 45-day TBA eligible PCs are exchanged for 55-day UMBS. This follows the precedent established in 1990 with the exchange of 75-day Freddie Mac securities for 45-day securities and is responsive to input from respondents to the [Request for Input: Proposed Single Security Structure](#) that was published by FHFA in August 2014. Freddie Mac also intends to provide float compensation to investors in non-TBA PCs when they exchange those securities for Freddie Mac MBS.

In the 2015 Single Security Update Freddie Mac proposed that it would offer investors float compensation payments based on a schedule of rates that would be informed by fair value methodologies, with one or more rates offered for each product type (15-year PCs, 30 year PCs, etc.). Freddie Mac will offer, at a minimum, one rate of float compensation for every term/coupon

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<sup>5</sup> Supers will be the name for single class resecuritizations composed of UMBS.

combination (30-year 3% coupon securities, 15-year 2.5% coupon securities, etc.), where the rate multiplied by the current UPB of the exchanged security will determine the float compensation amount paid to investors.

Freddie Mac may also offer compensation adjustments for securities that have specified characteristics that lead to a substantial change in the value of the float compensation. Examples of such characteristics include low loan balance pools, which may have a higher market float value, and superconforming pools, which may have a lower market float value. If Freddie Mac offers such adjustments, it will be done in the same manner as the base float compensation rate, with one adjustment level for each term/coupon combination.

Freddie Mac intends to use OAS valuation methods to determine the value of the float, whereby OAS derived from the price of the 45-day security will be held constant and used to determine the price of a comparable 55-day security. The difference in price between the two securities will be the rate paid for of the 10 days of float.

In order to establish the approximate fair market value for the float, Freddie Mac intends to leverage the float compensation values produced by OAS models used by holders. This could include values from third-party models that come from analytics providers, as well as values provided by securities dealers that are derived from their proprietary models. Freddie Mac has to rely on model values to determine the value of the float because it is not a trading asset. Freddie Mac is working with third-party vendors to formulate a controlled, automated methodology that will be used to determine the value of the float.

As was described in the 2015 Single Security Update, the final compensation offered to holders could also be affected by other considerations, such as the increased liquidity of the Single Security, which could mean that the final float compensation value offered may differ from that provided by the market models. Freddie Mac reserves the right to change its float compensation rate schedule over time (for example, in response to market movements, selection biases observed in the exchange or other factors).

Freddie Mac will make this float compensation schedule available to the public, similar to the way that it currently discloses Giant and REMIC fees. The float compensation schedule will be available on the Freddie Mac website ([www.FreddieMac.com](http://www.FreddieMac.com)), within Dealer Direct and through information services like Bloomberg. Also, as was described above, for any given exchange transaction the exact value of the float compensation to be received will be provided when dealers submit an exchange transaction, based on the CUSIP and UPB of the security to be exchanged. A sample float compensation schedule is provided later in this document (See Table 5 in the Appendix).

## **Proposed Disclosure of Exchanges**

As described in the [Joint Single Security Disclosure Introduction](#) and the [Freddie Mac 2017 Disclosure Guide](#) (July 2016) Freddie Mac will publish a number of disclosures to keep market participants informed of the volume of exchanges. Proposed exchange disclosures will include daily information regarding each security exchanged and the total available supply of 45- and 55-day securities. The names of the attributes contained in these exchange reports are consistent with new disclosure standards for all UMBS, where applicable.



*Freddie Mac Daily Exchange Activity Report* – Every business day, Freddie Mac will publish this report providing information on all exchange transactions that were completed on the previous business day. This report will contain one row for each exchange transaction where a 45-day Freddie Mac PC/Giant PC, or portion thereof, is exchanged directly for its corresponding 55-day mirror security, or portion thereof, on a given day. It will include the security identifier (pool number) and CUSIP of both the 45-day and 55-day securities involved in the transaction as well as the amount of "Issuance Investor Security UPB" (Original Par) exchanged and settled as part of the transaction. Freddie Mac will begin to publish this report when the first exchange transactions are settled. (See Table 1 in the Appendix)

*Freddie Mac Cumulative Exchange Activity Report* – Every business day Freddie Mac will publish this report providing information on the exchange activity to date for all exchange eligible PCs/Giant PCs. It will contain one row for every Freddie Mac 45-day security eligible to be exchanged, regardless of whether any exchange activity has occurred to date. It will include the security identifier and CUSIP for all 45-day securities and their 55-day mirrors and the cumulative amount of "Issuance Investor Security UPB" (Original Par) exchanged and settled by that date. Freddie Mac will begin to publish this report as soon as the mirror securities are issued to allow market participants to begin to map the 45- and 55-day securities and cohorts. (See Table 2 in Appendix)

*Freddie Mac Daily Level 1 Report* – In order to facilitate the calculation of the tradable supply and outstanding volumes of 45- and 55-day securities and to help analysts who generally ignore Giants in their calculations of supply and prepayments, every business day Freddie Mac will publish this report which will break down all exchanges on the basis of their lowest level PC collateral. This report will allocate all exchanges of Giants back to their original Level 1 PC collateral and add that to any exchanges of a Level 1 PC directly to its corresponding mirror security. The "Aggregate Exchanged Issuance Investor Security UPB" disclosure field will provide information on how much of every 45-day Level 1 PC has been exchanged to date either directly or via a resecuritization so market participants can know how much of each Level 1 PC is in 45- or 55-day form. This will allow the calculation of 45- and 55-day supply and prepayments for any legacy cohort without looking at the disclosures for Giants or mirror securities. This report will have one row for every Freddie Mac 45-day Level 1 PC, even if it is not eligible to be exchanged. (See Table 3 in Appendix)

*Exchange Tie Out Table* – On a daily basis Freddie Mac will publish a table that will provide data on the available supply of 45- and 55-day securities at the cohort level to facilitate trading and which can be used by market participants as a benchmark for their own reports. This table will provide the outstanding current UPB, by term and coupon, for Freddie Mac 45-day securities, exchanged Freddie Mac 55-day securities, new issue Freddie Mac 55-day securities and Fannie Mae securities (using publicly available data), as well as the UPB of each of those cohorts that is committed to REMICs. (See Table 4 in Appendix)

## **Conclusion**

As the details of the exchange program are still in development and are subject to change, Freddie Mac continues to solicit feedback from market participants on aspects of the design and implementation of the exchange program. In particular, Freddie Mac is seeking feedback on the following questions related to the mechanics of the exchange transaction and exchange capacity requirements:

- What conditions will prompt the exchange of 45-day securities?

- Will investors want to exchange prior to the launch of the Single Security?
- Are there different incentives for exchanging securities based on whether an investor wishes to hold the security versus actively trade?
- Will money managers roll up the positions from multiple investors of the same CUSIP or will they exchange them piece-by-piece?
- Are there certain times during the month that are better than others for exchanging securities?
- Are there advantages to creating Giants/Supers prior to the Single Security Implementation Date versus simultaneously with the exchange transaction?
- Are there other factors that may impact the exchange program that Freddie Mac should be aware of?

Any responses to these questions, as well as any additional feedback or questions related to the content of this document, can be sent to [single\\_security@freddiemac.com](mailto:single_security@freddiemac.com).

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This document is not an offer to buy, sell or exchange any securities of Freddie Mac or any other issuer. Offers for any given security are made only through applicable exchange circulars, offering circulars and related supplements, which incorporate applicable Freddie Mac Annual Report on Form 10-K; all other reports Freddie Mac filed with the SEC pursuant to Section 13(a) of the Securities Exchange Act of 1934 (Exchange Act) since December 31, 2015, excluding any information "furnished" to the SEC on Form 8-K; and all documents that Freddie Mac files with the SEC pursuant to Sections 13(a), 13(c) or 14 of the Exchange Act, excluding any information furnished to the SEC on Form 8-K.

This document may contain forward-looking statements. A description of factors that could cause actual results to differ materially from the expectations expressed in these and other forward-looking statements can be found in the company's Annual Report on Form 10-K for the year ended December 31, 2015, and its reports on Form 10-Q and Form 8-K, filed with the SEC and available on the Investor Relations page of the company's Web site at [www.FreddieMac.com/investors](http://www.FreddieMac.com/investors) and the SEC's Web site at [www.sec.gov](http://www.sec.gov).

## Appendix: Sample Exchange Disclosures

Note: The following sample tables are for illustrative purposes only. However, the 45-day PC references and associated UPB values in the sample tables are actual as of January 2016; the 55-day mirror security and exchange information are solely illustrative. In the Tie Out Table, the total outstanding UPB values are based on outstanding values as of March 2016; the REMIC and 55-day exchanged and new issue numbers are solely illustrative. The float compensation table is for illustrative purposes only.

**Table 1: Sample Freddie Mac Daily Exchange Activity Report**

Freddie Mac 45 Day Security Identifier	Freddie Mac 45 Day Security CUSIP	Freddie Mac 55 Day Security Identifier	Freddie Mac 55 Day Security CUSIP	Issuance Investor Security UPB	Exchanged Issuance Investor Security UPB	Cumulative Exchanged Issuance Investor Security UPB	As of Date
A92014	312940GX1	ZA5900	314287TM2	1,185,804	1,185,804	1,185,804	12/2016
Q24207	3132M4KU8	ZA6208	314286RG9	26,952,462	10,000,000	19,000,000	12/2016
G06550	3128M8TF1	ZD5782	314290JF6	397,641,826	15,000,000	250,000,000	12/2016
G06550	3128M8TF1	ZD5782	314290JF6	397,641,826	75,000,000	250,000,000	12/2016
A57681	3128KLRA7	ZT6216	314260RS1	766,190,442	20,540,000	125,540,000	12/2016
A57681	3128KLRA7	ZT6216	314260RS1	766,190,442	5,000,000	125,540,000	12/2016
A57681	3128KLRA7	ZT6216	314260RS1	766,190,442	15,000,000	125,540,000	12/2016

Sample: For Illustrative Purposes Only

**Table 2: Sample Freddie Mac Cumulative Exchange Activity Report**

Freddie Mac 45 Day Security Identifier	Freddie Mac 45 Day Security CUSIP	Freddie Mac 55 Day Security Identifier	Freddie Mac 55 Day Security CUSIP	Issuance Investor Security UPB	Cumulative Exchanged Issuance Investor Security UPB	As of Date
A92014	312940GX1	ZA5900	314287TM2	1,185,804	1,185,804	1292016
Q24207	3132M4KU8	ZA6208	314286RG9	26,952,462	19,000,000	1292016
Q17733	3132J9BB3	ZR8912	314270UL7	1,146,662	-	1292016
G07501	3128M9U26	ZR4206	314250RE2	47,714,833	12,500,000	1292016
G06550	3128M8TF1	ZD5782	314290JF6	397,641,826	250,000,000	1292016
A70272	3128L3JR8	ZT6301	314264BD3	3,980,680	300,000	1292016
A57681	3128KLRA7	ZT6216	314260RS1	766,190,442	125,540,000	1292016

**Table 3: Sample Freddie Mac Daily Level 1 Report**

Level 1 Security Identifier	Level 1 Security CUSIP	Issuance Investor Security UPB	Resecuritized Issuance Investor Security UPB	Cumulative Exchanged Issuance Investor Security UPB	Issuance Investor Security UPB Remaining Eligible for Exchange	Cumulative Issuance Investor Security UPB Exchanged through Resecuritizations	Aggregate Exchanged Issuance Investor Security UPB	Aggregate Issuance Investor Security UPB Remaining Eligible for Exchange	Security Factor	Security Factor Date	As of Date
A92014	312940GX1	1,185,804	-	1,185,804	-	-	1,185,804	-	0.34243132	12016	1292016
Q24207	3132M4KU8	26,952,462	-	19,000,000	7,952,462	-	19,000,000	7,952,462	0.73406	12016	1292016
Q17733	3132J9BB3	1,146,662	-	-	1,146,662	-	-	1,146,662	0.88938028	12016	1292016
A70272	3128L3JR8	3,980,680	3,680,680	300,000	-	2,314,067	2,614,067	1,366,612	0.06323913	12016	1292016
A57681	3128KLRA7	766,190,442	540,941,712	125,540,000	99,708,730	340,093,569	465,633,569	300,556,872	0.03808993	12016	1292016
A57687	3128KLRG4	50,904,538	50,904,538	-	-	32,004,013	32,004,013	18,900,524	0.02948858	12016	1292016
Q21145	3132JNHW0	7,359,417	7,359,417	-	-	1,927,968	1,927,968	5,431,448	0.72334929	12016	1292016
Q21218	3132JNK71	4,024,061	4,024,061	-	-	1,054,195	1,054,195	2,969,865	0.7629613	12016	1292016

**Table 4: Sample Tie Out Table (\$'s in millions)**

Term	Coupon	Freddie												Fannie			UMBS					
		Total Outstanding			45-day unexchanged			55-day Exchanged			55-day new issue			Total 55-day Outstanding			Outstanding			All 55-day Outstanding		
		REMIC	Float	Total	REMIC	Float	Total	REMIC	Float	Total	REMIC	Float	Total	REMIC	Float	Total	REMIC	Float	Total	REMIC	Float	Total
30	2.5	826	1,652	2,478	728	1,457	2,185	0	182	182	37	74	111	37	256	293	1,239	2,478	3,717	1,276	2,734	4,010
	3	75,586	151,171	226,757	2,162	4,323	6,485	0	19,454	19,454	2,162	4,323	6,485	2,162	23,777	25,939	113,379	226,757	340,136	115,540	250,534	366,074
	3.5	120,401	240,802	361,203	2,883	5,765	8,648	0	25,944	25,944	2,883	5,765	8,648	2,883	31,709	34,592	180,602	361,203	541,805	183,484	392,913	576,397
	4	76,118	152,236	228,354	3,173	6,345	9,518	0	28,553	28,553	3,173	6,345	9,518	3,173	34,899	38,071	114,177	228,354	342,531	117,350	263,252	380,602
	4.5	34,870	69,739	104,609	2,744	5,487	8,231	0	24,692	24,692	2,744	5,487	8,231	2,744	30,179	32,923	52,385	104,609	156,914	55,048	134,788	189,836
	5	19,814	39,627	59,441	1,702	3,405	5,107	0	15,322	15,322	1,702	3,405	5,107	1,702	18,727	20,430	29,720	59,441	89,161	31,423	78,168	109,591
	5.5	12,507	25,015	37,522	236	472	708	0	2,123	2,123	236	472	708	236	2,555	2,831	18,761	37,522	56,283	18,997	40,117	59,114
	6	8,009	16,018	24,027	409	818	1,227	0	3,680	3,680	409	818	1,227	409	4,498	4,907	12,014	24,027	36,041	12,422	28,525	40,947
	6.5	3,161	6,323	9,484	208	416	624	0	1,872	1,872	208	416	624	208	2,388	2,596	4,742	9,484	14,226	4,950	11,772	16,722
	7	890	1,781	2,671	82	164	246	0	737	737	82	164	246	82	900	982	1,335	2,671	4,006	1,417	3,571	4,988
	7.5	275	549	824	15	31	46	0	138	138	15	31	46	15	169	184	412	824	1,235	427	992	1,420
	8	136	273	409	2	4	6	0	18	18	2	4	6	2	21	23	204	409	613	206	430	637
	8.5	42	84	126	2	3	5	0	15	15	2	3	5	2	19	20	63	126	189	65	145	209
	<b>Total</b>	<b>352,635</b>	<b>705,270</b>	<b>1,057,904</b>	<b>14,345</b>	<b>28,690</b>	<b>43,035</b>	<b>0</b>	<b>122,731</b>	<b>122,731</b>	<b>3,093</b>	<b>27,307</b>	<b>40,960</b>	<b>13,653</b>	<b>150,037</b>	<b>163,691</b>	<b>528,952</b>	<b>1,057,904</b>	<b>1,586,857</b>	<b>542,606</b>	<b>1,207,942</b>	<b>1,750,547</b>

**Table 5: Sample Float Compensation Schedule (Values in ticks)**

Coupon	Term		
	30	20	15
2			1.5
2.5	1.75	1.5	1.25
3	1.75	1.5	1.25
3.5	1.75	1.5	1.25
4	1.75	1.25	2.25
4.5	1.75	1.25	2.75
5	1.75	1.25	3
5.5	2	1.25	3
6	2	1.25	3