FHFA's GOALS FOR ENTERPRISE RPL & NPL SALES AND THE IMPORTANCE OF MWDOB PARTICIPATION

FHFA's goals for Enterprise Non-Performing Loan (NPL) and Re-Performing Loan (RPL) Sales

- NPL sales reduce the number of seriously delinquent loans held in portfolio, reducing taxpayer losses and transferring credit risk to the private markets.

- NPL sales achieve more favorable outcomes for borrowers and local communities than the outcomes that would be achieved if the Enterprises held the NPLs in their portfolios.

- RPL sales transfer credit and interest rate risk on seasoned current and sub-performing loans to the private markets.

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FREDDIE MAC'S NPL SALES PROGRAM

Program Overview

- NPLs are generally one year or more delinquent.
- Purchasers of Enterprise NPLs are subject to servicing and reporting requirements published by FHFA, which have been enhanced over time.
- Freddie Mac conducted the first Enterprise Pilot NPL Sale in August 2014.

Freddie Mac's Standard Pool Offering® (SPO®).

- These pools are generally large and geographically diverse.

Freddie Mac's Extended Timeline Pool Offering® (EXPO®s)

- These pools are smaller sized pools that are typically geographically concentrated.
- Structured to attract diverse participation by nonprofits, small investors, and MWDOBs.
- Allows more time from offering to closing to provide smaller investors more time to secure funds, close and transfer loans.
- 100% of EXPO sales have been sold to non-profit or MWDOB buyers.

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Freddie Mac's RPL Sales Program

- RPLs were NPLs that have since been modified or self-cured to become current or sub-performing loans.

- Freddie Mac completed their first RPL Sale in May 2016, selling approximately $292 million in unpaid principal balances (UPB) of seasoned re-performing loans. The loans were step-rate modifications (primarily HAMP) and loans modified under GSE proprietary modifications.

- Freddie Mac sells RPLs through Seasoned Credit Risk Transfers (SCRT) or Seasoned Loans Structured Transactions (SLST). SCRT includes current loans with 12 or more months clean pay history. SLST includes both current and sub-performing loans.

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THE IMPORTANCE OF MWDOB PARTICIPATION

MWDOB Participation

- 100% of Freddie Mac's **EXPO®** pools have been sold to non-profit or MWDOB buyers.

- Additionally, Freddie Mac has retained a MWDOB to provide market outreach and advisory services on every NPL sale, regardless of size.

- Freddie Mac and FHFA have either hosted or participated in numerous seminars and conferences focused on MWDOB and non-profit participation in NPL sales.

- FHFA is reviewing Fannie Mae's smaller NPL pool pilot sales that feature a bidding structure permitting MWDOBs and non-profit buyers to exercise a "last look" prior to bid award.

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NPL SALES PROGRAM ACTIVITIY

FHFA monitors and reports on the Enterprises' NPL sales programs

- FHFA published the 5th NPL Sales Report in June 2018.

Combined NPL Sales Activity for Fannie Mae and Freddie Mac Through December 31, 2017	
Loan Count at Settlement	90,921 loans
Unpaid Principal Balance at Settlement	$17.4 billion
Average Delinquency	3.2 years
Average Loan-to-Value Ratio	95 percent

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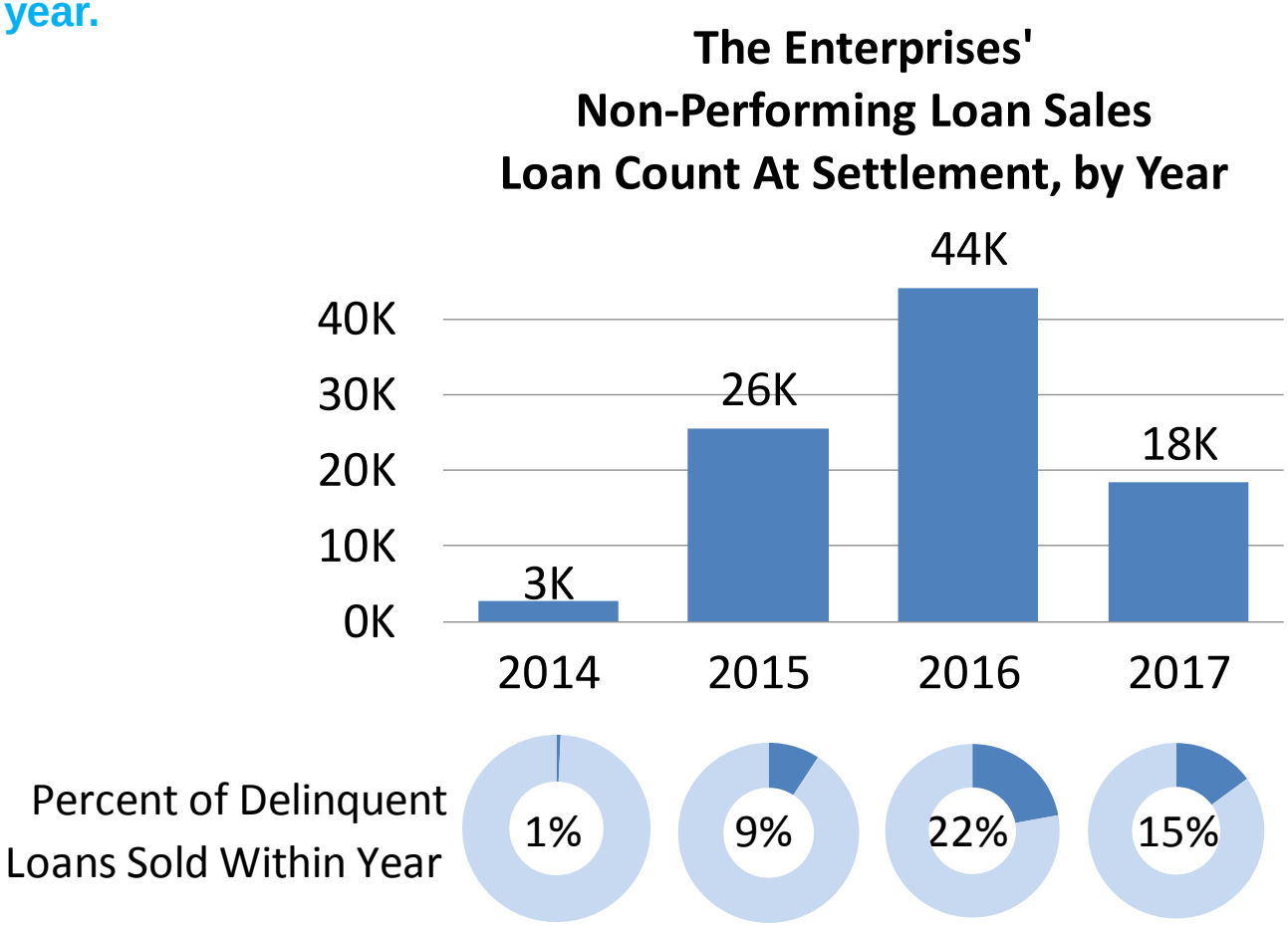
NPL SALES PROGRAM ACTIVITY CONT'D

The number of NPLs sold peaked in 2016 at 44 thousand loans, representing 22 percent of the total delinquent loans in the Enterprises portfolios at the start of the year.



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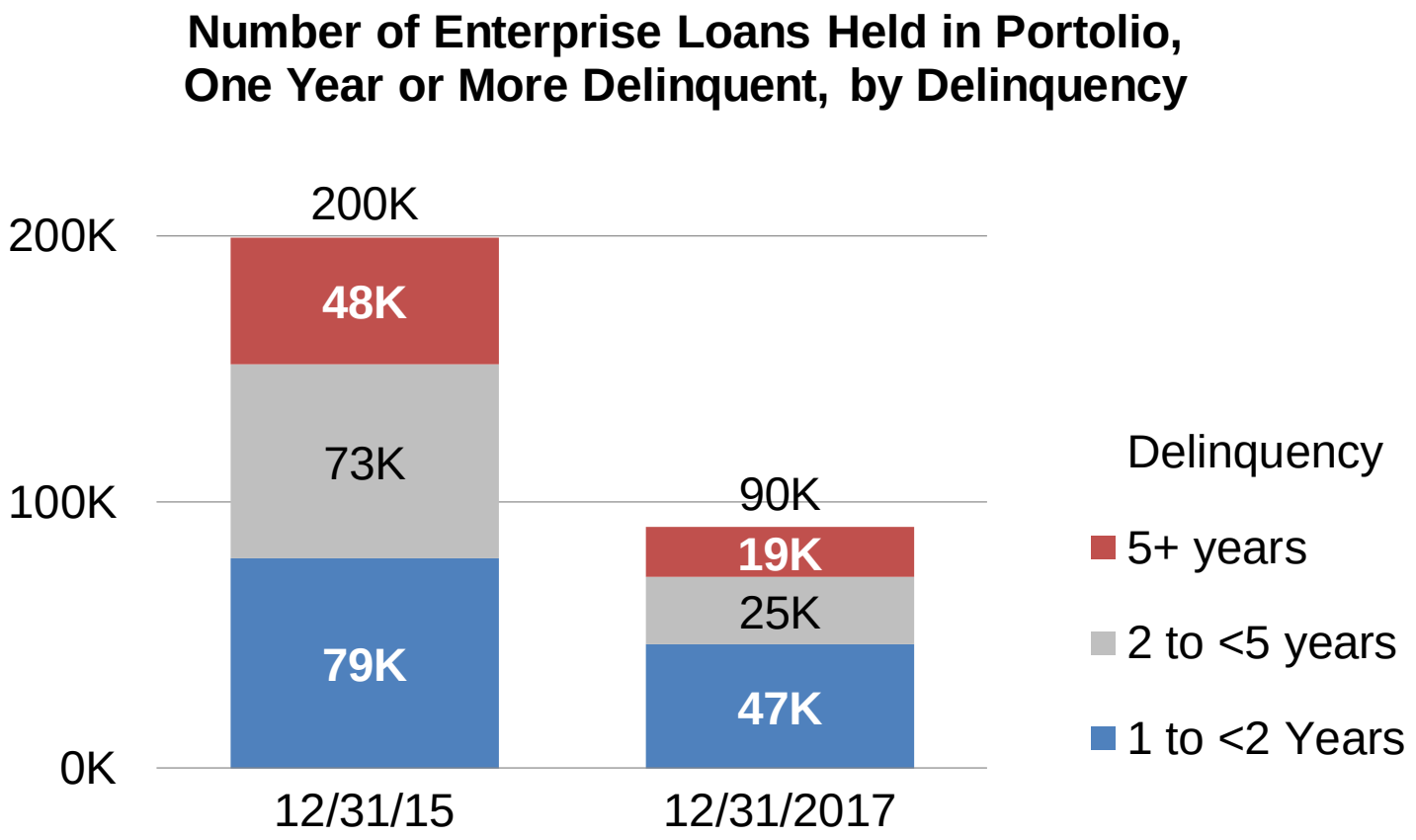
NPL SALES PROGRAM ACTIVITY – 2015 VS 2017

From 2015 to 2017 the number of Enterprise loans one or more years delinquent decreased by 55 percent.



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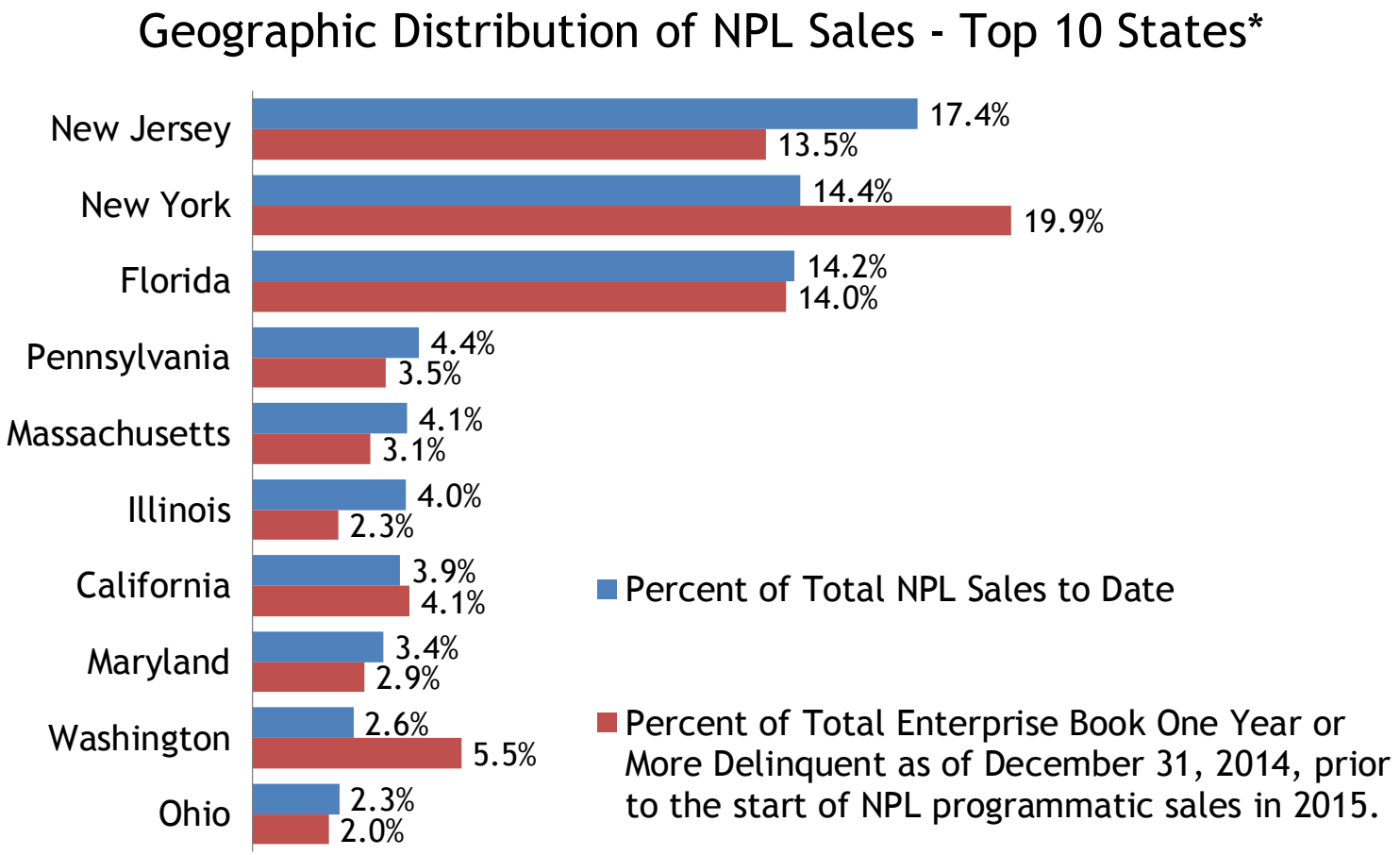
NPL SALES PROGRAM ACTIVITY – GEOGRAPHIC DISTRIBUTION

New Jersey, New York and Florida accounted for 46 percent of NPLs sold through December 31, 2017, and 47 percent of the Enterprises' NPLs prior to the start of the programmatic NPL sales in 2015.



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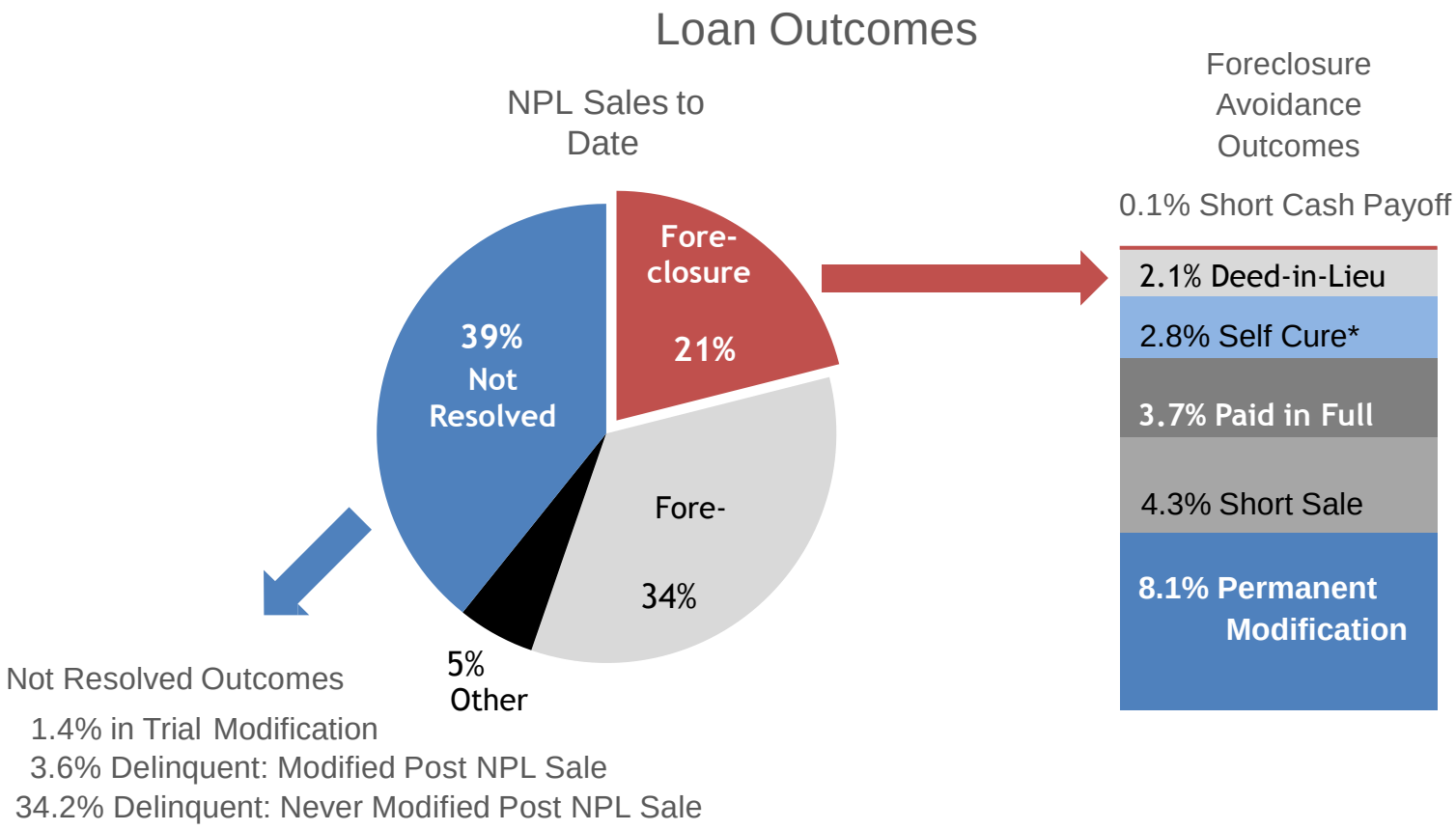
NPL SALES RESULTS – LOAN PERFORMANCE POST-SALE

Through December 31, 2017, 55 percent of all NPLs sold had been resolved. Twenty one percent of NPLs were resolved without foreclosure and 34 percent were resolved through foreclosure.



Freddie Mac's Seasoned Credit Risk Transfer ("SCRT")

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Freddie Mac Seasoned and Legacy Loan Activity

Approximately $50 Billion from 2011 through August 2018

PCs - Fully Guaranteed Securitizations

R, M and H Pools

$27.1 billion settled since 2011

Primarily 12+ months clean pay history

Serviced to Freddie Mac Guide

No forborne UPB

No servicing change

SCRT - RPL Senior/Sub

Guaranteed Senior/ Non-guaranteed Subs

$13.8 billion settled since Q4 2016

Primarily 12+ months clean pay history

Not serviced to Freddie Mac Guide

Includes forborne UPB

Freddie Mac selects servicer for trust

NPL Sales

SPO and EXPO Offerings

$7.4 billion settled since 2014

Primarily 12+ months delinquent

Not serviced to Freddie Mac Guide

Includes forborne UPB

NPL buyer selects servicer

SLST - RPL Structured Sales

Guaranteed Senior/ Non-guaranteed Subs

$1.7 billion settled since Q4 2016

Inconsistent pay RPLs and moderately DQ NPLs

Not serviced to Freddie Mac Guide

Includes forborne UPB

Buyer of Subs selects servicer

Transfer Risk via Economically Sensible and Socially Responsible Transactions

Source: Freddie Mac Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 and Press Releases on FreddieMac.com

SCRT Program Overview

- **Launched pilot in Dec 2016 and have issued $14B over 8 transactions to Date**
  - Cash Senior / Sub Securitization
  - Servicing to PSA which incorporates FHFA RPL sales requirements
  - Allows flexibility managing the retained portfolio balance sheet and both market and credit risk.

- **Loan Characteristic**
  - Using our most recent SCRT 18-3 deal as an example:

100% 12+ months MBA clean pay	100% Modified Loans
~85% 24+ months MBA clean pay	~75% 36+ months MBA clean pay
~70% Loan-to-Value ratio	~13% UPB Forborne
~10+ years from origination (on average)	~5+ years from modification (on average)

- **Collateral Groups:**
  - Guaranteed Senior Bonds are issued backed by three different collateral groups
    - H group: Step Rate Loans which have not yet reached the final step
    - M group: <= 5.5% GWAC Fixed Rate Loans or Step Rate Loans which have made a payment under the final rate
    - M55: > 5.5% GWAC Fixed Rate Loans or Step Rate Loans which have made a payment under the final rate
  - Non-Guaranteed Classes are backed by the aggregate cross collateralized groups

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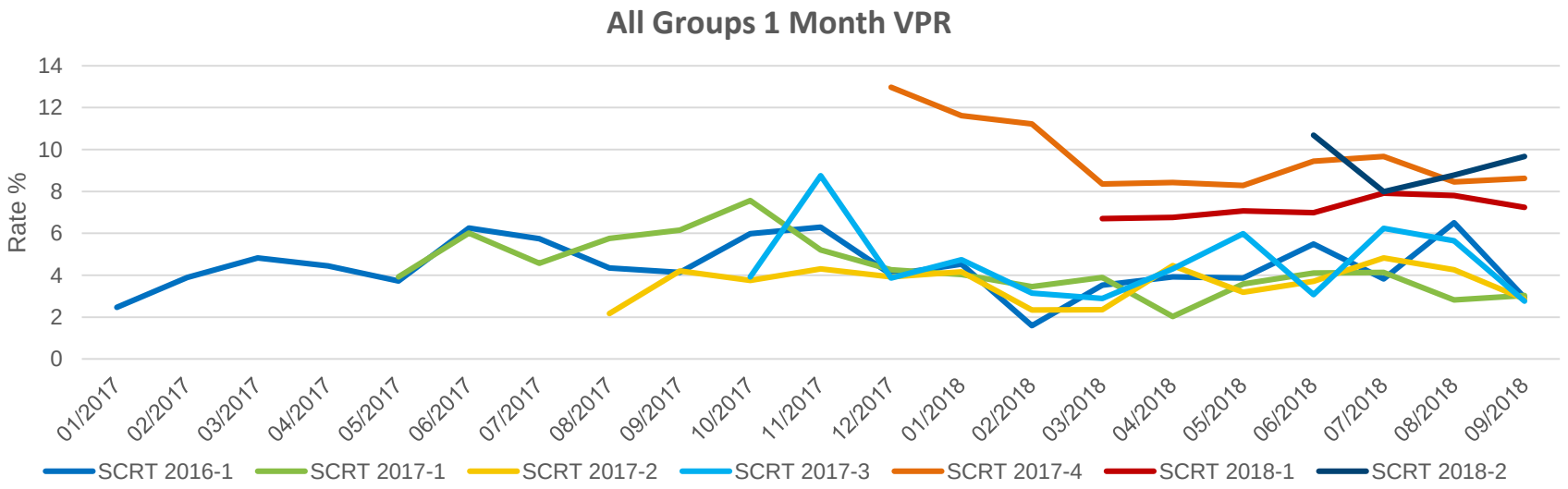
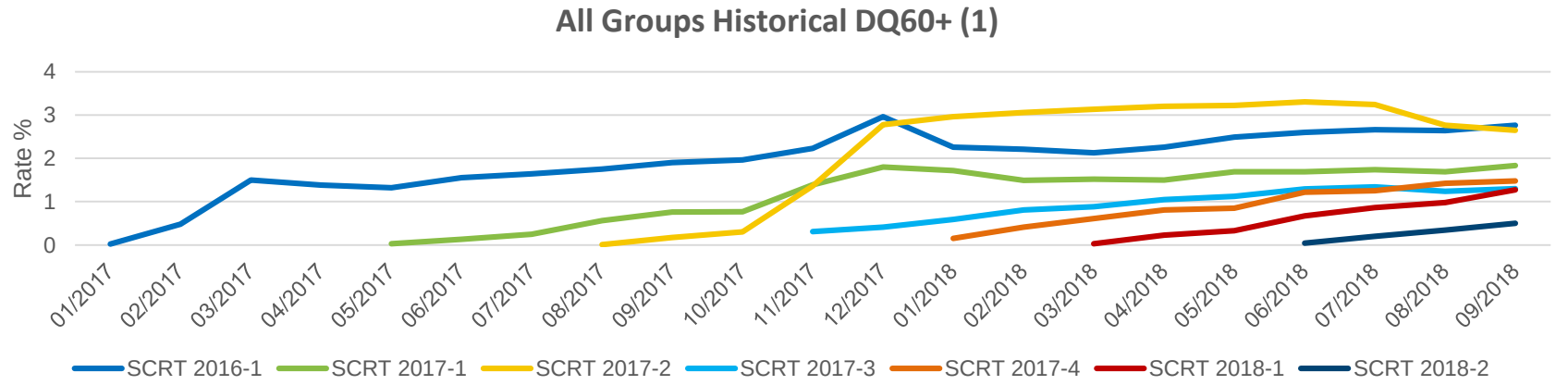
SCRT Structure Information

Recent Offering							
Deal	Group	Class	Initial Class Principal or Initial Class Notional Amount	Approximate Initial Class Coupon	Initial Credit Enhancement	WAL (years)(1)	Principal Window (months)(1)
SCRT 18-3	H	HT	$640,946,000	3.000%	7.75%	7.77	1-325
SCRT 18-3	H	HA	$480,710,000	3.000%	7.75%	4.67	1-138
SCRT 18-3	H	HB	$160,236,000	3.000%	7.75%	17.09	138-325
SCRT 18-3	H	HV	$80,118,000	3.000%	7.75%	9.88	1-165
SCRT 18-3	H	HZ	$80,118,000	3.000%	7.75%	18.59	165-325
SCRT 18-3	M	MT	$1,413,373,000	3.500%	7.75%	7.98	1-330
SCRT 18-3	M	MA	$1,060,031,000	3.500%	7.75%	4.81	1-142
SCRT 18-3	M	MB	$353,342,000	3.500%	7.75%	17.48	142-330
SCRT 18-3	M	MV	$176,671,000	3.500%	7.75%	9.40	1-163
SCRT 18-3	M	MZ	$176,671,000	3.500%	7.75%	18.68	163-330
SCRT 18-3	M55	M55D	$89,364,000	4.000%	7.75%	4.57	1-234
SCRT 18-3	M55	M55E	$89,364,000	3.500%	7.75%	4.57	1-234
SCRT 18-3	M55	M55I	$8,124,000	5.500%	7.75%	4.57	n/a
SCRT 18-3	n/a	M	$75,523,000	4.750%	4.50%	10.16	88-166
SCRT 18-3	n/a	BX	$104,569,975	2.275%	0.00%	22.15	166-469
SCRT 18-3	n/a	XS-IO	$2,323,775,975	0.075%	n/a	8.50	n/a

(1) SCRT Pricing Assumptions - Group H: 5.0% ramp to 8.0% CPR over 24 months, 0.0% ramp to 1.0% CDR over 36 months, 25.0% Severity; Group M: 5.0% ramp to 8.0% CPR over 24 months, 0.0% ramp to 1.0% CDR over 36 months, 25.0% Severity; Group M55: 15.0% CPR, 0.0% ramp to 1.0% CDR over 36 months, 25.0% Severity

SCRT Historical Performance for All Groups





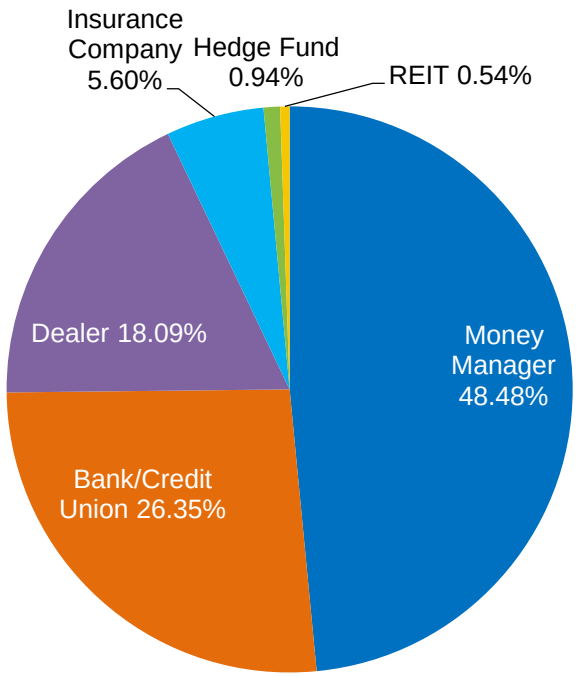
Source: Bloomberg

(1) DQ 60+ is the percentage of mortgage loans which are 60 or more days delinquent, including mortgage loans in foreclosure, bankruptcy, and real estate owned (REO) buckets

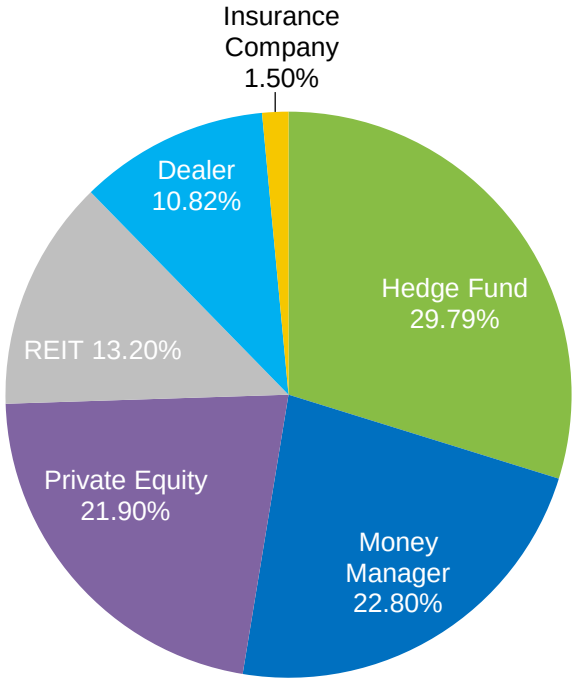
SCRT Investor Types(1)

Significantly expanded investor base; 44 senior and 33 credit investors in the last 2 years

Guaranteed Certificates



Non-Guaranteed Certificates



(1) Market Value is reflected as of issuance for SCRT 2016-1 to SCRT 2018-3

Freddie Mac's Seasoned Loans Structured Transaction ("SLST")

Jeff Willoughby

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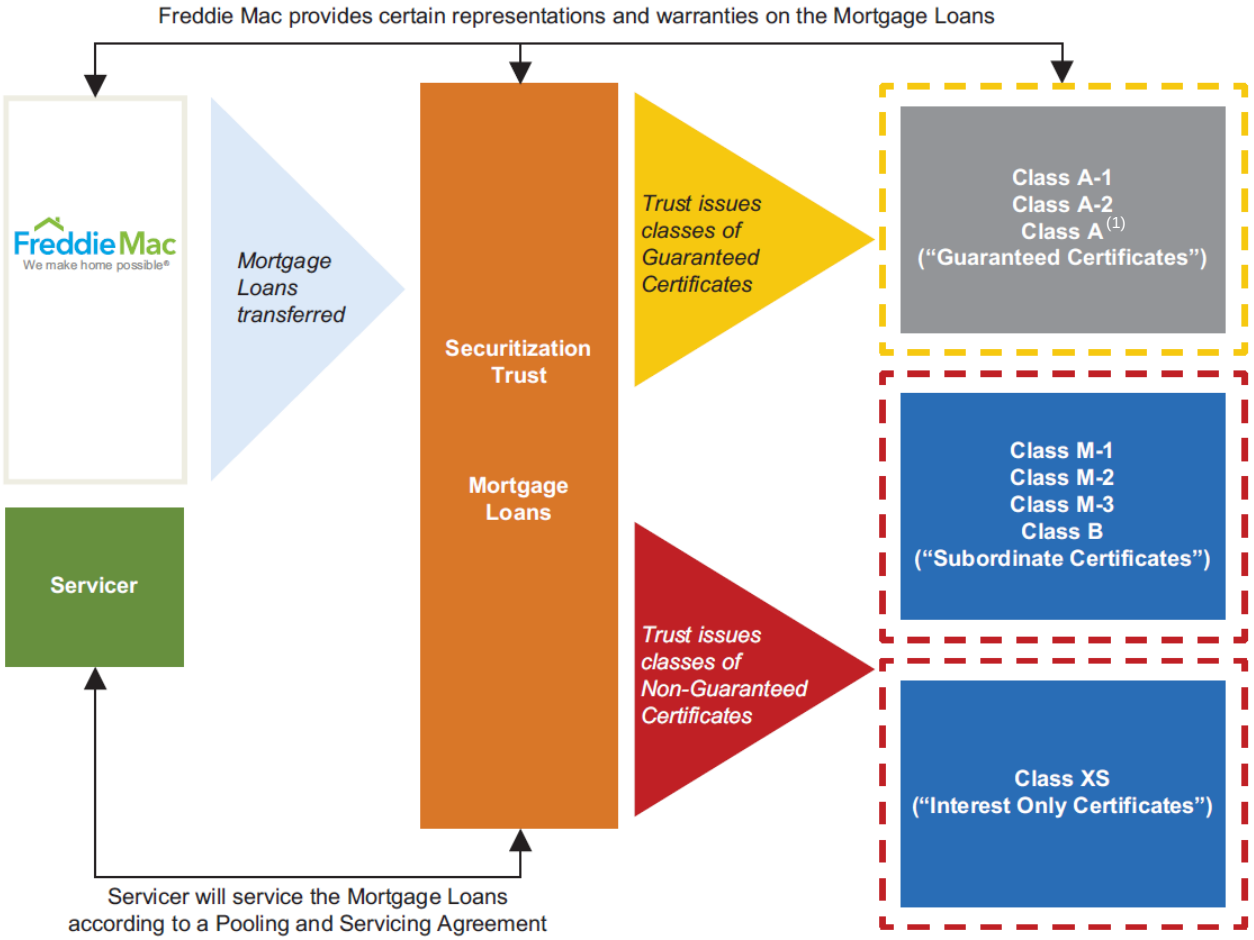
SLST Program

- **Freddie Mac has closed four SLST transactions**
  - The related loans are primarily inconsistent pay RPLs and moderately delinquent NPLs
- **Prior to 2018, SLST transactions followed a two-step process:**
  - Step 1: Whole loan sale via an auction subject to requirements set forth in a securitization term sheet
  - Step 2: Loans securitized by the purchaser and the senior securities are guaranteed by Freddie Mac are purchased by Freddie Mac
- **Beginning with SLST 2018-1, Freddie Mac deposits the loans into a Freddie Mac-created Trust that issues Freddie Mac-guaranteed seniors and non-guaranteed subordinates**

SLST 2018-1 Transaction Structure

Transaction Diagram



(1) The Class A Certificates were not offered at the time of closing. They were deposited into a REMIC and tranched sequentially into the Class A-1 Certificates and Class A-2 Certificates.

Note: The Trust also issued a Class R Certificate, a Class RA Certificate, and a Class RS Certificate, which represented the non-economic residual interests in the REMICs created in the structure, and a Mortgage Insurance Certificate (the "Class MI Certificate") that is entitled to Mortgage Insurance Proceeds received from Mortgage Loans, which Certificate was retained by Freddie Mac. The Class MI Certificate was not offered at the time of closing and does not represent interests in any REMIC.

Note: See Offering Circular for definitions and further details

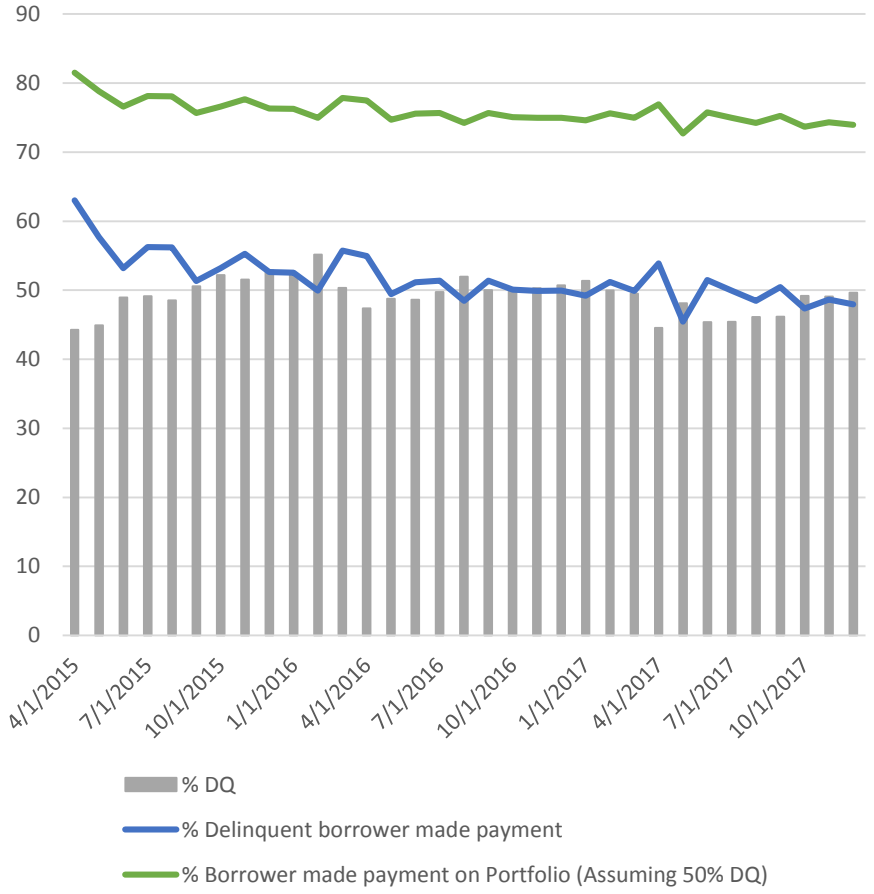
SLST Structure Information

Recent Offering						
Deal	Class	Initial Class Principal or Initial Class Notional Amount	Approximate Initial Class Coupon	Initial Credit Enhancement	WAL (years)(1)	Principal Window (months)(1)
SLST 18-1	A-1	$261,041,764	3.500%	27.78%	5.08	1-120
SLST 18-1	A-2	$87,013,921	3.500%	27.78%	9.99	120-120
SLST 18-1	A*	$348,055,686	3.500%	27.78%	7.65	n/a
SLST 18-1	M-1	$18,219,132	3.000%	24.00%	3.05	28-46
SLST 18-1	M-2	$28,916,917	3.000%	18.00%	5.23	46-81
SLST 18-1	M-3	$28,916,917	3.000%	12.00%	9.82	81-233
SLST 18-1	B	$57,832,866	1.500%	0.00%	23.78	233-431
SLST 18-1	XS	$481,941,517	(2)	n/a	n/a	n/a

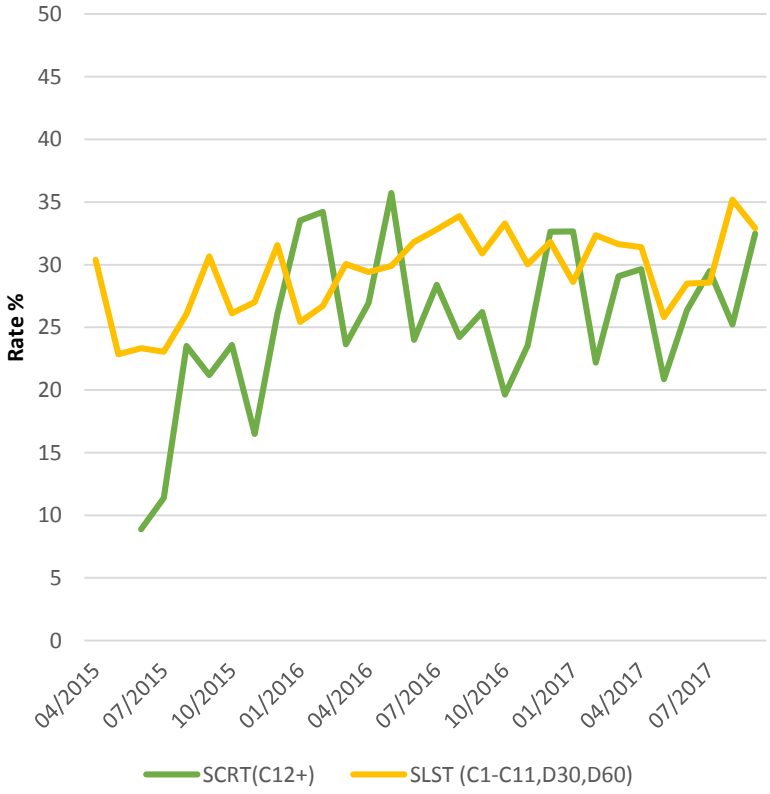
(1) SLST Pricing Assumptions: 3.0% ramp to 6.0% CPR over 36 months, 0.0% ramp to 2.5% CDR over 36 months, 35.0% Severity, no optional redemption is exercised
(2) Calculated as 0.375% minus the sum of the Asset Manager Fee Rate and the Servicing Fee Rate

Cashflowing Rate and Loss Severity

SLST (C1-11, D30, D60)
Cashflowing Rate(1)



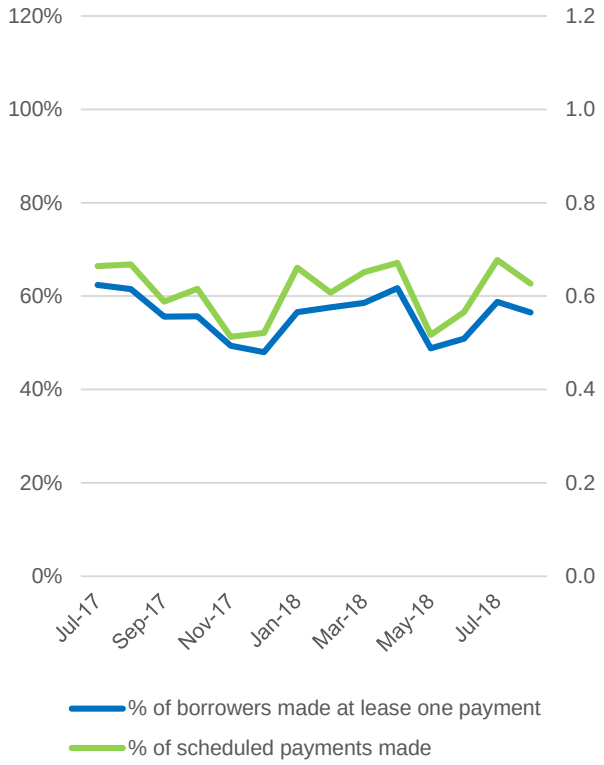
SCRT & SLST
Loss Severity(2)



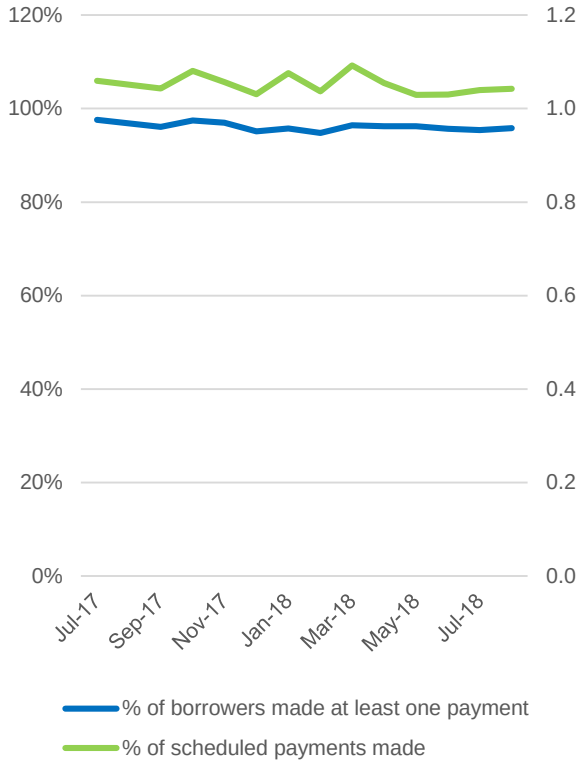
(1) Cashflowing Rate of delinquent loans is based on the number of loans that changed their delinquency status to the next better delinquency status since the prior period
(2) Principal loss only

TPMT 2017-FRE1: Over 80% Cashflowing Rate

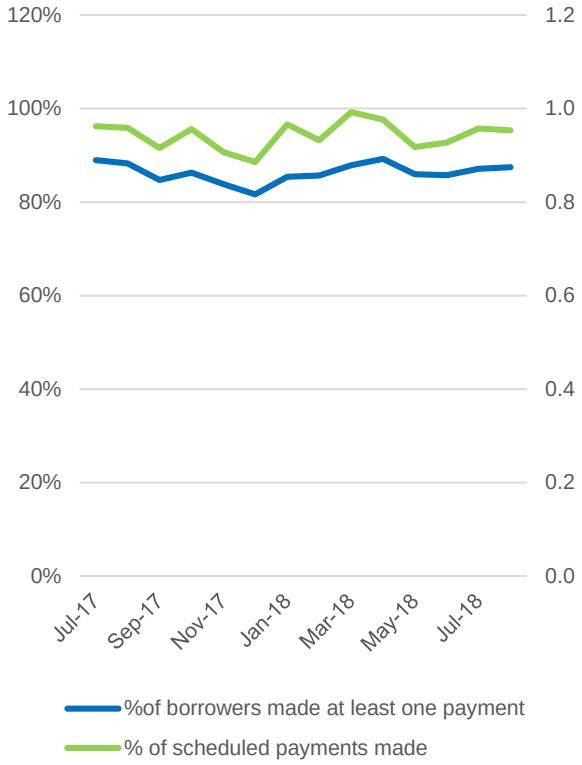
Delinquent Loans Cashflowing[1][2]



Current Loans Cashflowing[1][2]



Overall Cashflowing[1][2]



(1) Weighted by ending UPB
(2) If a loan is modified or liquidated in the reporting cycle, it is considered to have made no payment. If a borrower improves its delinquency status since the prior period or remains current, it is assumed to be cashflowing

Freddie Mac's Non-Performing Loan Sales

Doug Jeffery

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NPL Program's Offering Types: SPO & EXPO

- **Freddie Mac's NPL sales are comprised of 330 day delinquent loans**
  - No REO or current loans will be included in offering or settlement
- **Loans will be sold servicing released. Buyers are able to chose their servicer pending Freddie Mac's approval**

	Standard Pool Offering (SPO)	Extended Timeline Pool Offering (EXPO)
Number of Pools	2-5 pools	1-2 pools
Pool Sizes (UPB)	~ $100 - $350 Million	~ $20 - $35 Million
Geography	Usually National	Either Concentrated or National
Typical Cuts	By LTV and/or Geography	By LTV and/or Geography

- **Extended Timeline Pool Offering (EXPO)** targets MWOB, Non-Profits and Small Investors
  - Key Features:
    - Lower Net Worth Requirements than SPO
    - Extended Timeline to Qualify and Bid by Two weeks

NPL Program's Marketing, Qualification & Bid Process

- **Marketing is lead by one Broker/Dealer and one MWOB co-advisor**

- **To qualify,** bidders need to provide:
  - Non-Disclosure Agreement,
  - Bidder Qualification Statement detailing the Bidding Entity, its Owners, Financiers and Capital Providers,
  - Proof of funds to demonstrate the ability to provide the Deposit, and
  - Servicer Due-Diligence detailing the initial Servicer for Freddie Mac's approval

- **Data Room will provide access to data tape, form MLPSA, form ISA, and servicing files**

- **Bids will all be according to the form agreements in the data room**
  - No stipulations allowed to the contract

- **For all pre-qualified bidders, we will award based to the highest price via an auction**

Post-Sale Requirements & Other Items

- **FHFA NPL Sales Requirements are required including the below highlights:**
  - Honor Foreclosure Alternatives and Modifications in flight
  - Loss Mitigation Waterfall
  - Encourage REO Sales to Owner Occupants and Non-profits
  - Post-Sale monthly reporting is required to Freddie Mac

- **Public Data:**
  - Press Releases occur after offering and after Sale on Freddie Mac site show key dates and winners and covers of recent sales.
    - www.freddiemac.com/npl
    - Awarded 56 pools to date to 17 different purchases including 2 MWOB and Non-profit bidders
  - Aggregated Post-Sale Results are released on FHFA's site showing the performance of loans previously purchased.

Freddie Mac's Servicing Capital Markets

Bill Lyons

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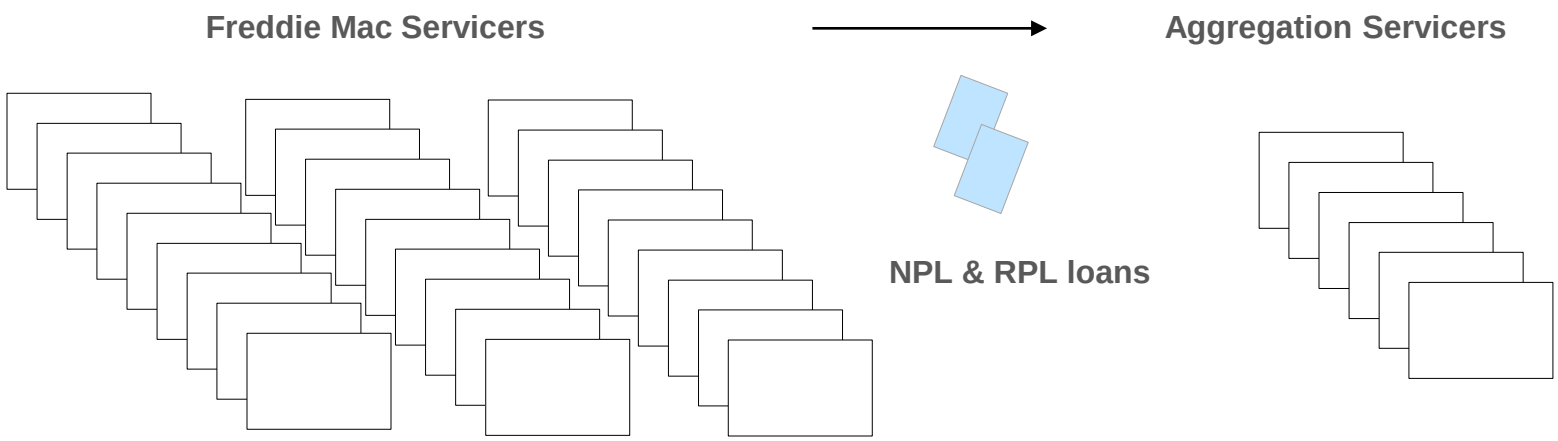
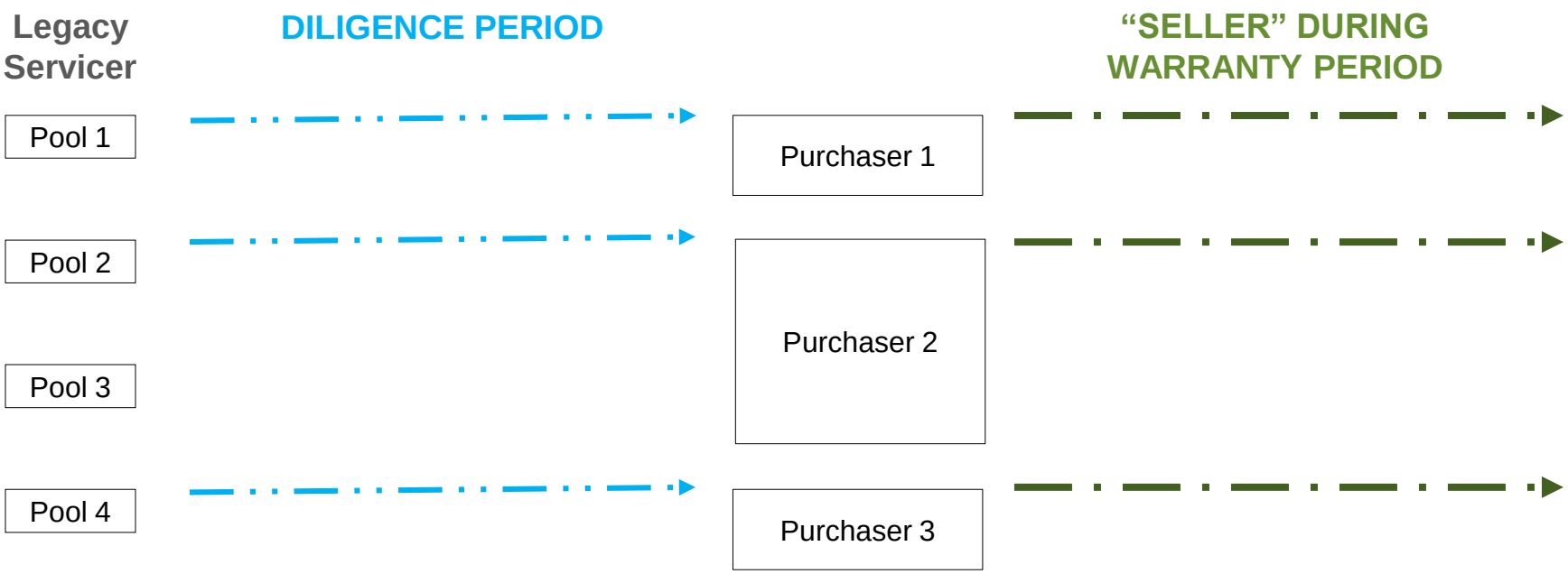
Servicing Capital Markets' Role in NPL & RPL Process

… about a year in advance of the transactions, SCM is consolidating the loans at servicers and custodians in preparations for transactions, scrubbing documents, data, and preparing packages for the offerings



Servicing Capital Markets' Role in NPL Offerings



Servicing Capital Markets' Role in RPL Offerings

Q&A

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RPL Borrower Behavior
Lessons Learned from the Housing Crisis

Sean Becketti

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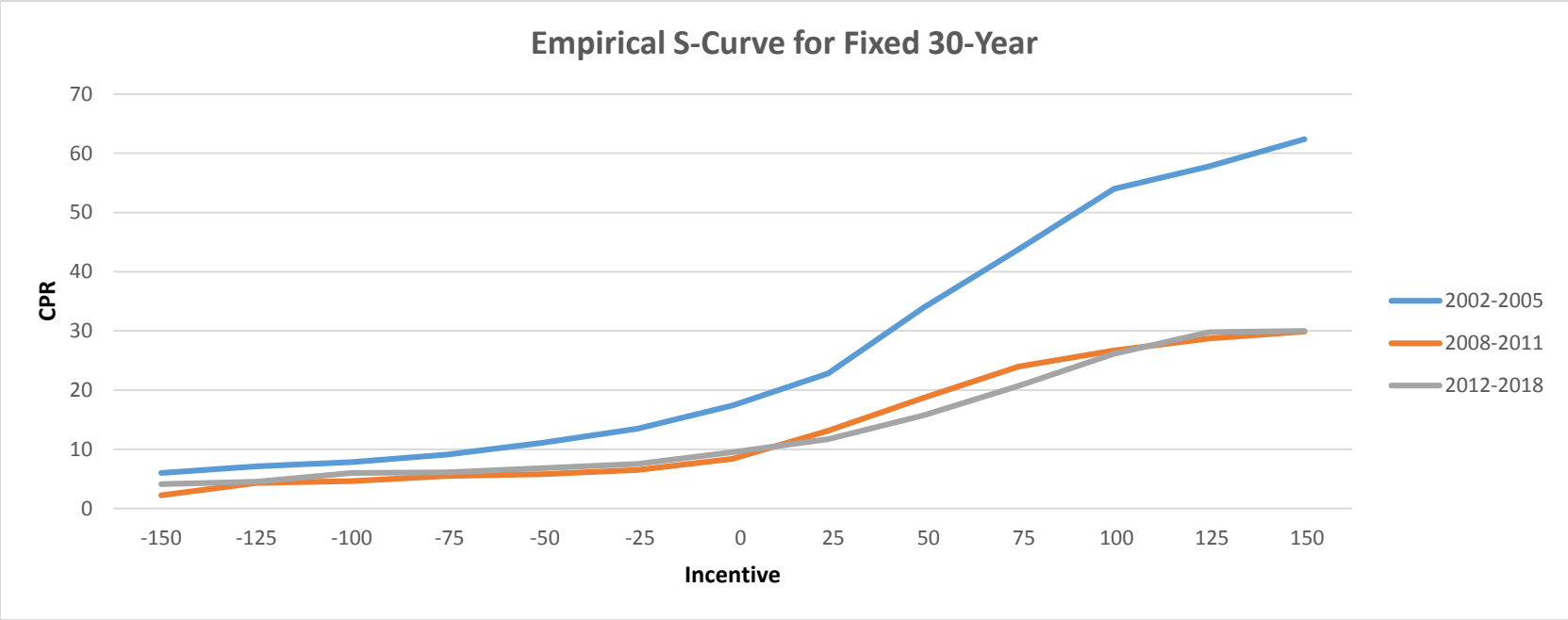
What did we think in the early stages of the crisis?

- Possibility of a 10-year, Japanese-style recession
- Tighter underwriting standards and higher transactions costs would permanently constrain prepayments
- “Shadow” inventory of foreclosed and soon-to-be foreclosed houses would limit house price increases
- Strategic defaulters would exacerbate defaults among borrowers with the ability to pay
- In the absence of a modification, seriously delinquent borrowers would transition quickly to default
- Modifications featuring lower note rates would be an effective tool in preventing or delaying defaults
- GSE conservatorship would be over quickly

Prepayments are significantly lower than pre-crisis

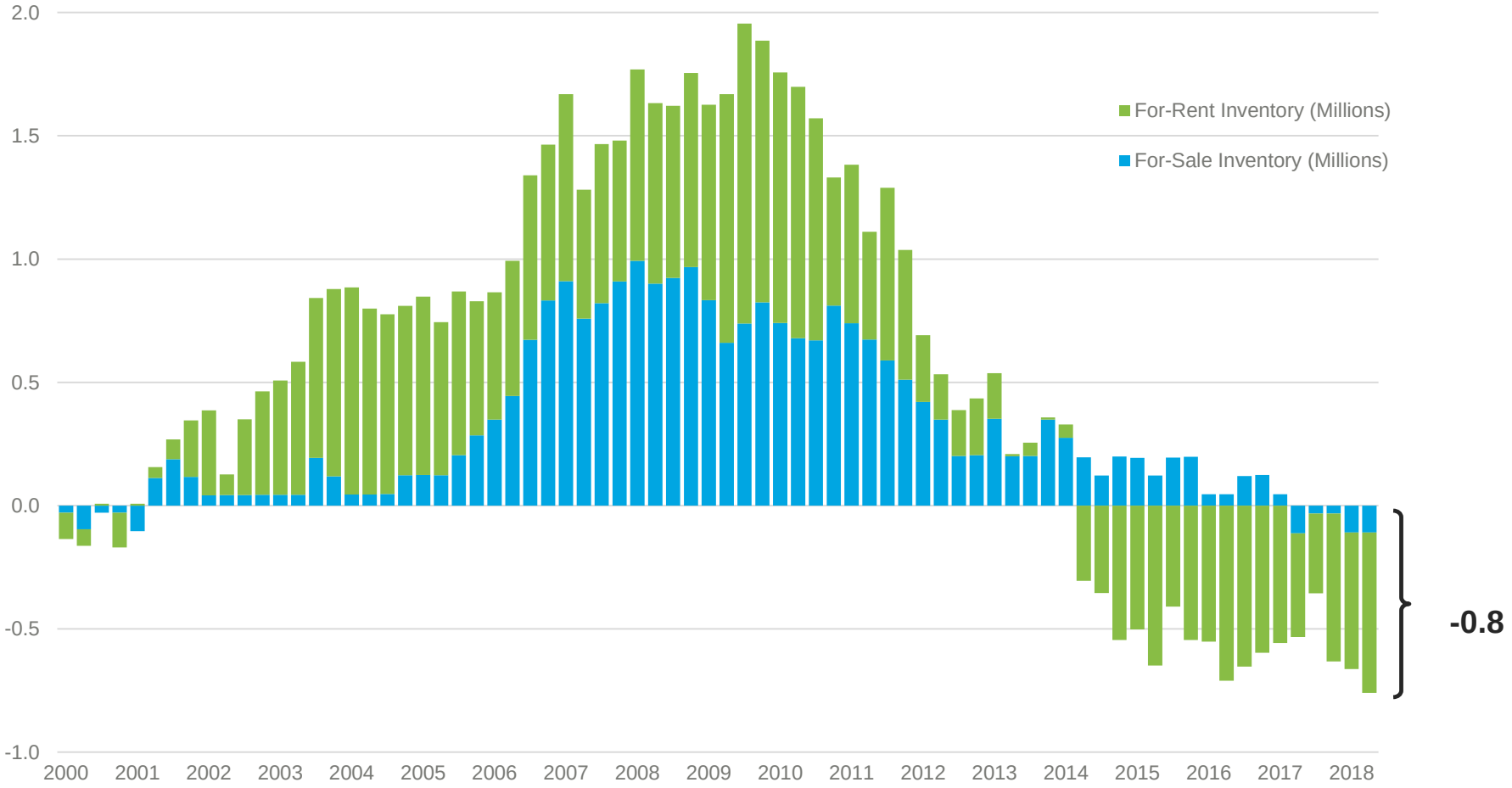
- Prepayments were ruthless pre crisis – a peak speed more than 60 CPR in the 2003 refinance wave.
- Post crisis, prepayments slowed down due to tightened underwriting standards and new regulatory requirements on the origination process (e.g., TRID).



Source: KDS and Freddie Mac
Note: Data including pools with WALA from 12 to 48. Incentive is the difference between WAC and 30-year primary mortgage rate.

Housing supply has moved from oversupply to undersupply

Vacant housing over/undersupply (millions of units)

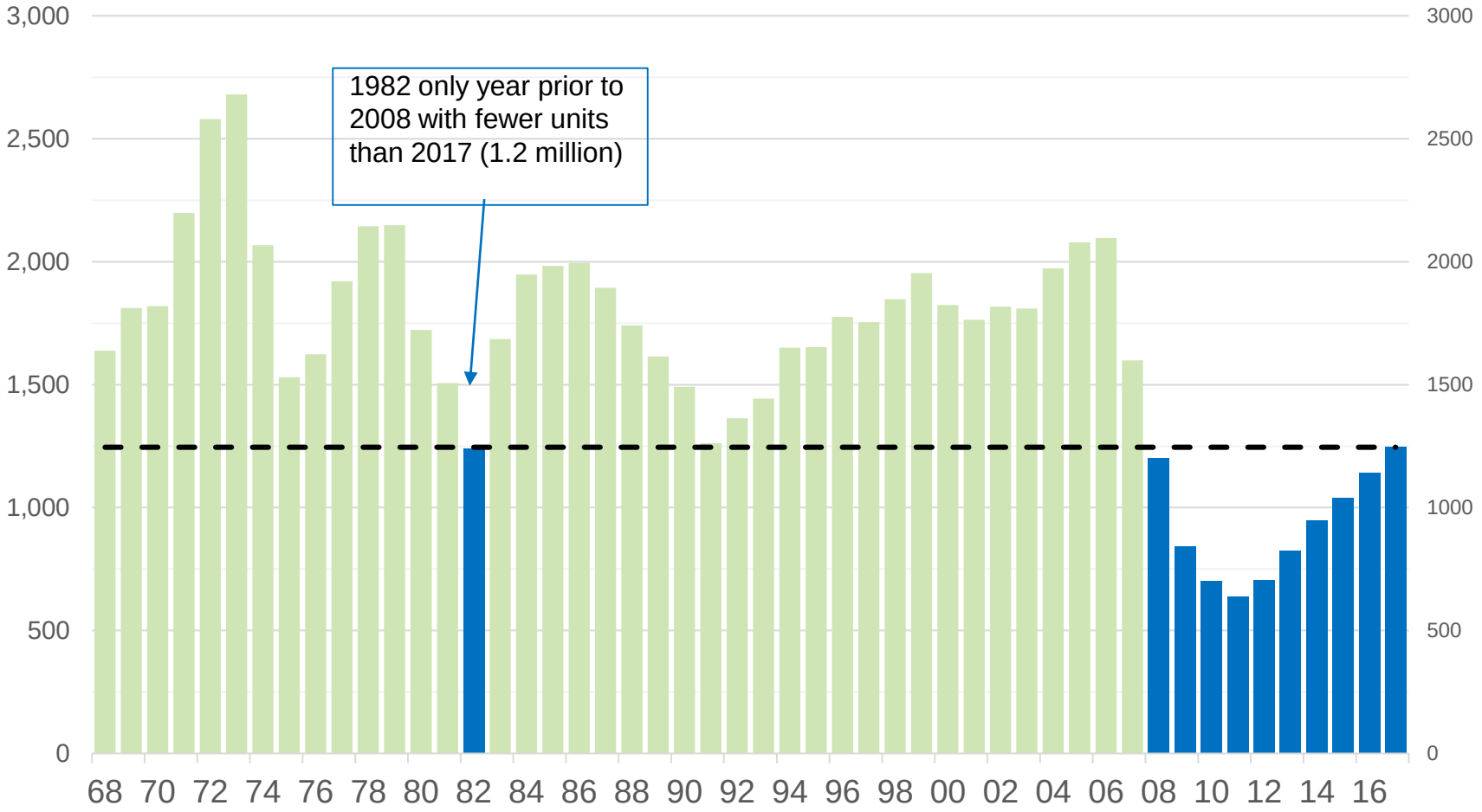


Source: Freddie Mac calculations using US Census Bureau data. Negative values reflect undersupply. The under/oversupply of vacant housing was estimated based on the average vacancy rate from 1994Q1 to 2003Q4. 2018 data as of June 30, 2018.

Prior to 2008, there was only one year when the U.S. added fewer housing units than in 2017

U.S. new housing supply low relative to history

U.S. annual housing completions and manufactured home shipments (1000s)

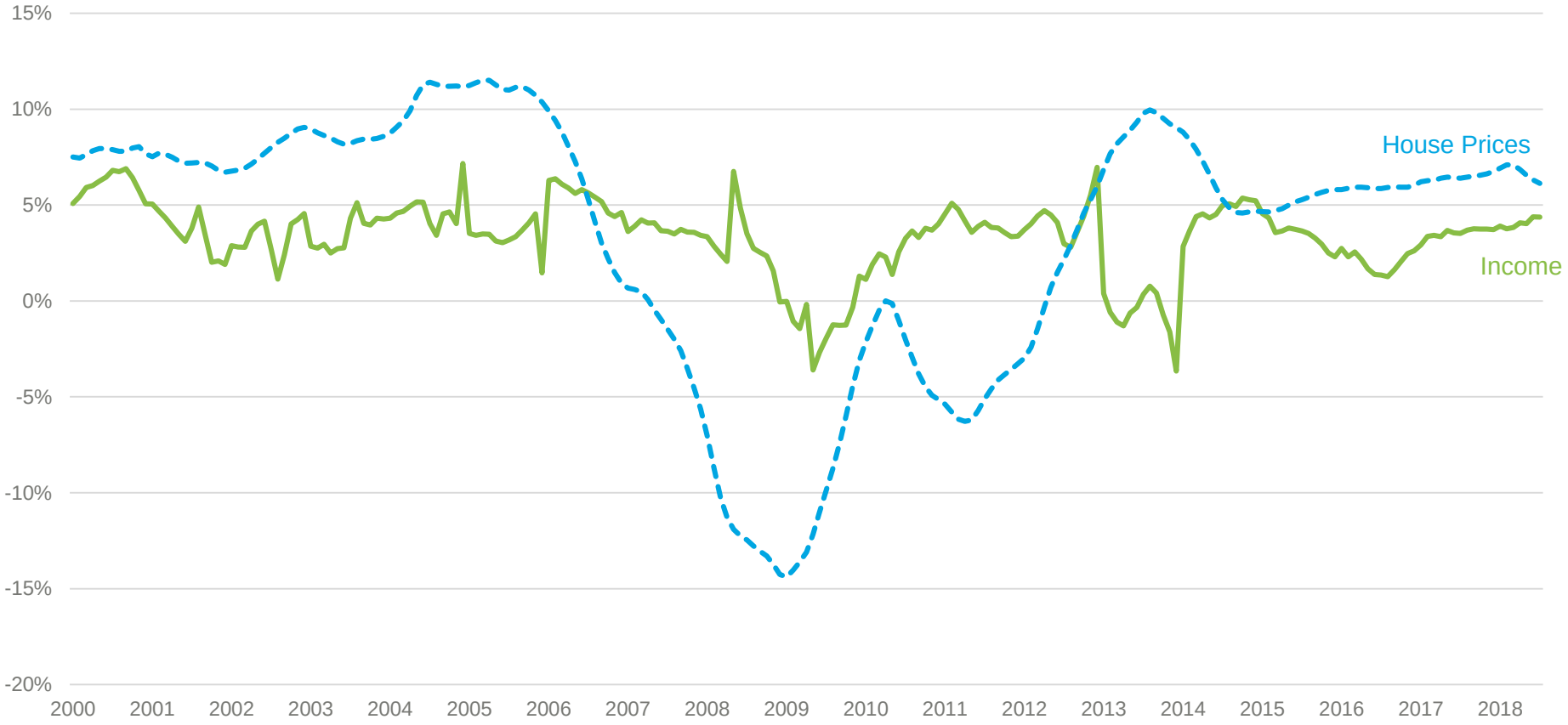


Source: U.S. Census Bureau and Department of Housing and Urban Development, Institute for Building Technology & Safety

Home prices are now outpacing income

U.S. House Price and Income Growth

12-month percent change

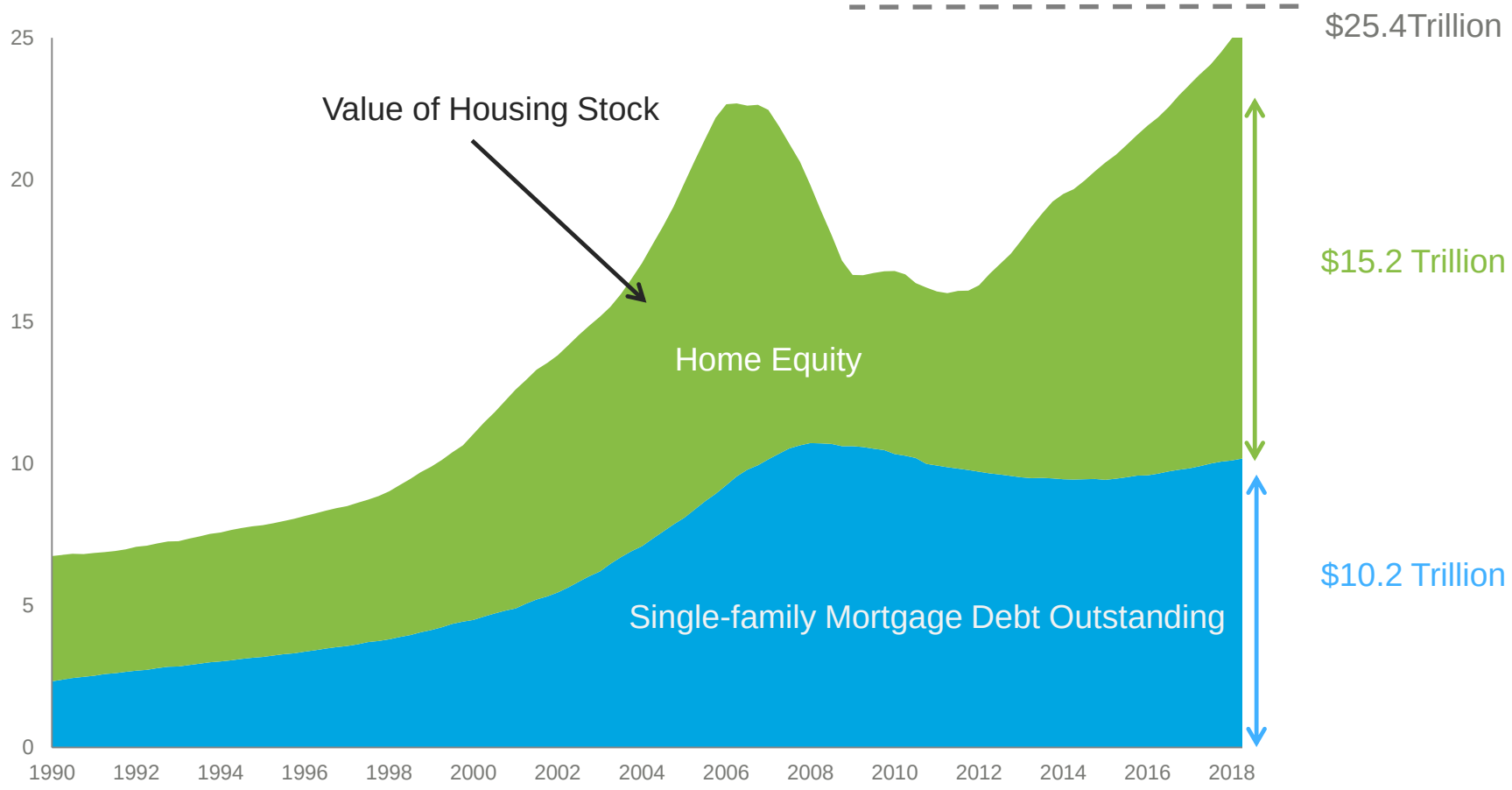


Sources: House price index is U.S. Freddie Mac House Price Index, Income is BEA per capita disposable income (SA)

Rising home prices help build equity

Total value of U.S. real estate held by households

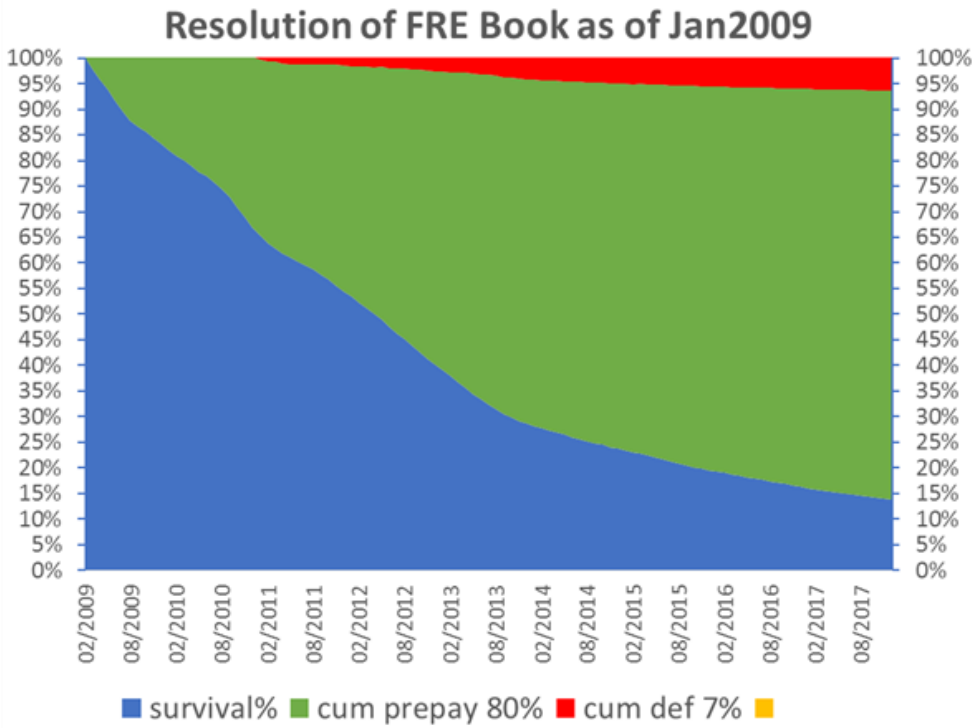
$Trillions



Note: Value of U.S. housing stock includes homes with and without underlying mortgages. U.S. home equity is the difference between the value of the U.S. housing stock and the amount of U.S. single-family mortgage debt outstanding.
Source: Federal Reserve Board's Financial Accounts of the United States, Table B. 101. Data as of June 30, 2018.

Fears of strategic default were overblown

- RPL borrowers survived the worst housing downturn either on their own or through the participation in HAMP/GSE modification programs.
- Mortgage default tends to associate with income loss regardless of debt-to-income ratio or home equity (JPMorgan Urban Institute 2017).
- Only 7% of Freddie's 2009 book of business ultimately defaulted.

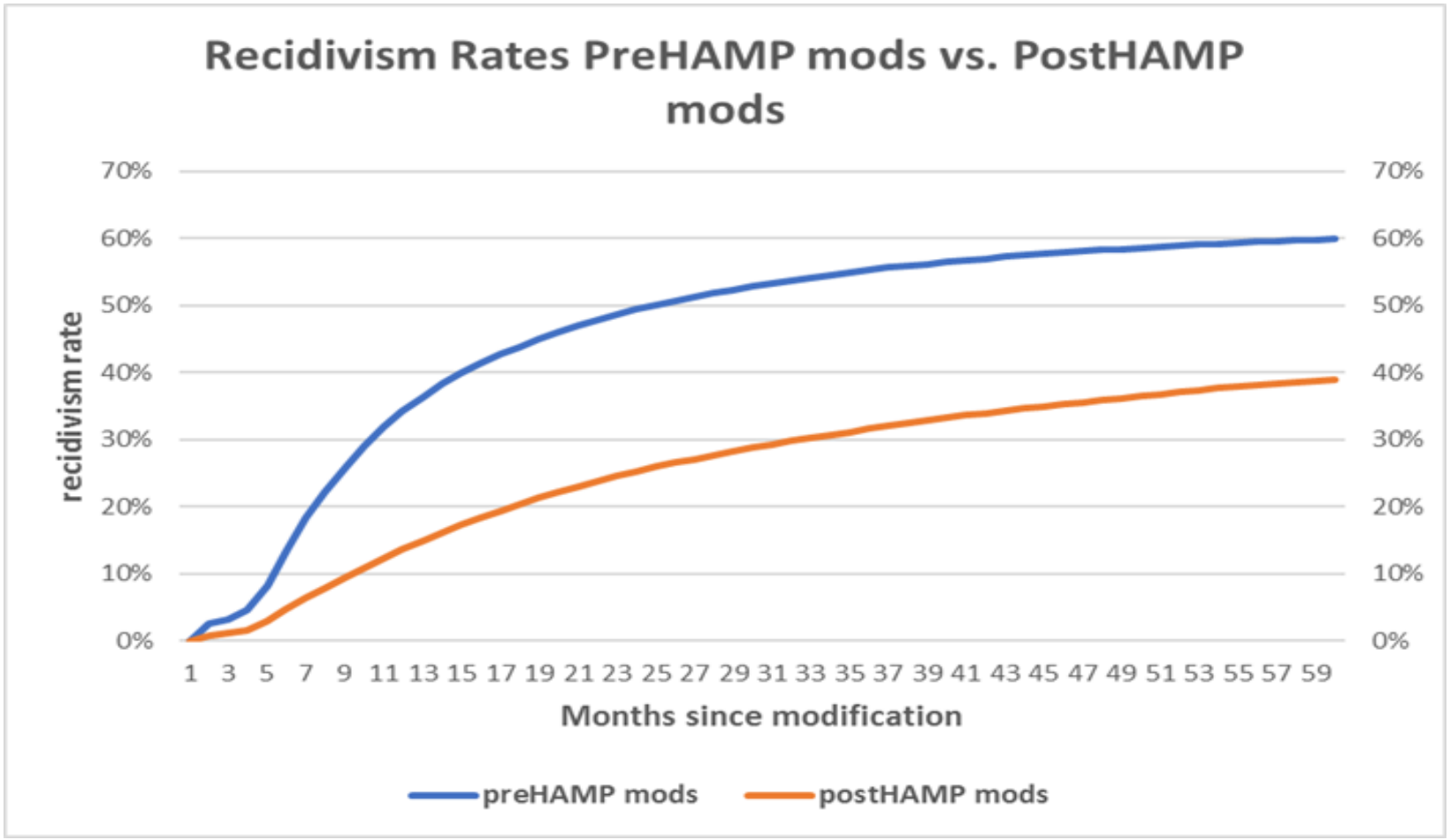


What type of modification works?

- **HAMP and GSE mods are significantly different than pre-HAMP mods—but it took a lot of trial-and-error to get them right.**
  - HAMP rolled out in 2009, then in 2013 GSEs introduced streamlined modification programs. In 2017, these programs were replaced with new GSE Flex Modification programs.
  - ***Most effective idea: Lower monthly payments – led to similar reduction in default rates but at much lower cost than principal reduction (Scharlemann and Shore 2017, JPMorgan Urban Institute 2017).***
  - ***Bad idea (for modelers):*** **Step rate mods.**

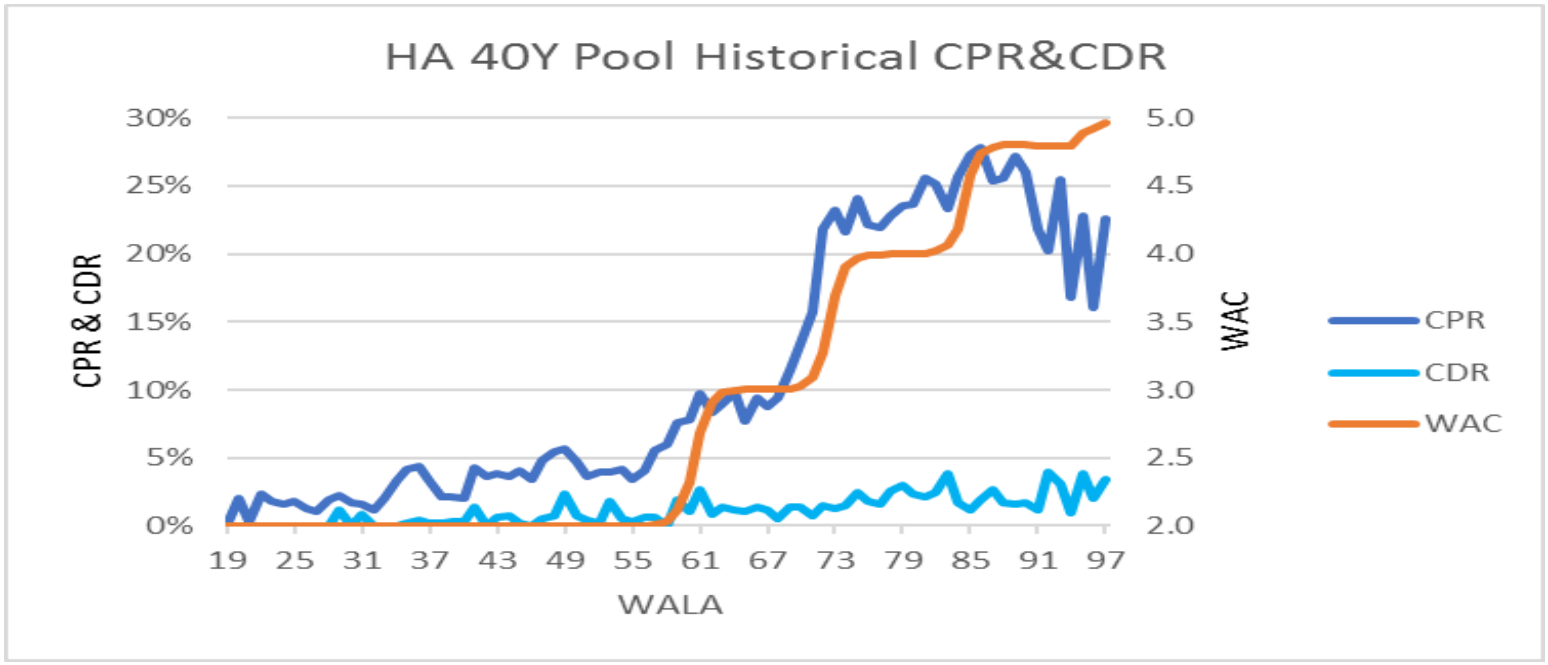
	Rate Reduction	Forebearance Mod %	40-Year Mod %	Payment Reduction %
Pre-HAMP mods	0.53%	0%	40%	8%
Post-HAMP mods	2.36%	21%	64%	26%

The re-default rates are much lower for HAMP mods than the pre-HAMP mods



Step rate shocks generated prepayments rather than defaults

- Step-rate mods experienced large payment shocks following rate resets.
- Due to the strong house recovery, there was no significant surge in re-default rates.
- Instead, payment shocks led to increases in voluntary prepayments around rate reset. But prepayments declined after the final rate step-up.



Source: EMBS and Freddie Mac
Note: Data including 40-year H-pools originated between 2009 and 2014 and performance up to July 2018.

Distressed borrowers exhibited a wide variety of payment behaviors

	SLST Collateral Current+D30 %			SLST Collateral Payment Rate			% Actual payment rate/Expected rate		
Aug-17	92.6			96.3			104%		
Sep-17	92.2			96.3			104%		
Oct-17	91.6			92.6			101%		
Nov-17	90.1			96.5			107%		
Dec-17	88.1	75.6		90.4	70.6		103%	93%	
Jan-18	87.9	76.0		90.1	103		103%	135%	
Feb-18	89.5	76.4		95.1	98.5		106%	129%	
Mar-18	91.2	80.1		95.9	94.1		105%	118%	
Apr-18	91.9	82.3		99.7	98.4		108%	120%	
May-18	92.7	83.2		98.5	93.8		106%	113%	
Jun-18	91.5	83.5		92.2	94.7		101%	113%	
Jul-18	91.3	84.2	84.9	94.4	92.4	76.6	103%	110%	90%
Aug-18	91.5	83.9	83.2	96.8	91.4	98.6	106%	109%	119%
	SLST 17-1	SLST 17-2	SLST 18-1	SLST 17-1	SLST 17-2	SLST 18-1	SLST 17-1	SLST 17-2	SLST 18-1

- The payment rate of SLST collateral consistently outstrips the performing rate of SLST collateral as delinquent collateral consistently makes payments.
- The average cashflowing rate of the SLST delinquency collateral (D60+/FC/BK/REO) is over 50%.