Table 1: Deals with EPD Clauses

Information regarding early payment default clauses was collected from SEC filings of pooling and servicing agreements and loan repurchase agreements for the following deals. All the 400 deals spanning 2005 and 2006 had general repurchase agreements. The following deals had EPD clauses in addition to general repurchase agreements.

Deals with EPD Clauses

ACE 2006-NC3	GSAMP 2005-S2	MSAC 2006-HE4	SABR 2006-HE2
ACE 2006-SD3	GSAMP 2005-WMC1	MSAC 2006-HE5	SABR 2006-WM2
BCAP 2006-AA2	GSAMP 2005-WMC2	MSAC 2006-HE6	SABR 2006-WM3
CBASS 2006-CB9	GSAMP 2006-FM2	MSAC 2006-HE7	SABR 2006-WM4
FFML 2005-FF8	GSAMP 2006-HE5	MSAC 2006-HE8	SAIL 2005-10
FFML 2006-FF6	GSAMP 2006-NC2	MSAC 2006-NC2	SAIL 2006-4
GSAA 2006-1	LXS 2006-11	MSAC 2006-NC3	SARM 2006-10
GSAA 2006-13	LXS 2006-8	MSAC 2006-NC5	SASC 2005-WF4
GSAA 2006-9	MABS 2006-HE5	MSAC 2006-WMC2	SASC 2006-BC4
GSAMP 2005-HE3	MABS 2006-NC3	MSHEL 2006-1	SASC 2006-BC6
GSAMP 2005-HE4	MASTR 2006-2	MSIX 2006-1	SASC 2006-WF2
GSAMP 2005-HE6	MLMI 2006-HE1	RAMP 2006-RS3	SASC 2006-WF3
SVHE 2006-WF2	SVHE 2006-WF1	SVHE 2006-EQ2	SVHE 2006-3

Table 2A: Some examples of Early Payment Default Clauses

The following are examples of early payment default clauses collected from SEC filings describing mortgage repurchasing obligations of the mortgage seller in the event that a borrower is delinquent on his first, second or third monthly payment.

First Franklin Mortgage Loan Trust 2005-FF8 (FFML 2005-FF8)

If the related Mortgagor is delinquent after the related Closing Date with respect to the Mortgage Loan's first Monthly Payment by more than 30 days or more following the related Due Date first occurring after the related Closing Date, the Seller, at the Purchaser's option exercised in its sole discretion, shall repurchase such Mortgage Loan from the Purchaser within thirty (30) Business Days following the Purchaser's request therefore at a price equal to the percentage of par as stated in the related Purchase Price and Terms Agreement (subject to adjustment as provided therein) multiplied by the then outstanding principal balance of such Mortgage Loan, plus accrued and unpaid interest thereon from the date to which interest was last paid through the day prior to the repurchase date at the applicable Mortgage Interest Rate, plus any outstanding advances owed to any servicer in connection with such Mortgage Loan.

Morgan Stanley ABS Capital I Inc. Trust 2006 HE-6 (MSAC 2006-HE6)

Subsection 9.04 Repurchase of Mortgage Loans with First Payment Defaults. With respect to any Mortgage Loan, in the event that the first scheduled payment of principal and interest due either (i) after origination of such Mortgage Loan, or (ii) after the related Closing Date is not paid within sixty (60) days of the related Due Date, the Seller, at the Purchaser’s option, shall repurchase such Mortgage Loan from the Purchaser at the Repurchase Price. The Seller shall repurchase such delinquent Mortgage Loan within thirty (30) days of such request unless the Seller can provide evidence reasonably acceptable to the Purchaser in its good faith discretion that such delinquency was due to a servicing error.

Structured Asset Investment Loans Trust (SAIL 2006-4)

In the event that any such Mortgage Loan is delinquent in payment with respect to the first, second and/or third monthly payment due to the Seller or such Mortgage Loan is delinquent in payment with respect to the first monthly payment due under the mortgage note, as applicable, as set forth under the related Sale agreement or Sale and Assignment Agreement, the related Transferor or the Seller, as applicable, will be obligated to purchase such Mortgage Loan from the Trust Fund.

Table 2B: Some examples of Representations and Warranties related to Repurchase Clauses

The following are examples of representations and warranties related to repurchase of loans collected from SEC filings describing the review periods in a post-sale audit that is allowed to the Trustee after the sale is made.

Wells Fargo Asset Securities Corp Mortgage Pass-Through Certificates Series 2005-AR15 (WFMBS 2005-AR15)

The Custodian will review each Owner Mortgage Loan File within 45 days after execution of this Agreement. The Custodian will deliver no later than 30 days after completion of such review to the Seller and the Trustee a final certification in the form of Exhibit O hereto to the effect that, except as may be specified in a list of exceptions attached thereto, all required documents set forth in Section 2.01(a) have been executed and received and appear regular on their face, and that such documents relate to the Mortgage Loans identified in the Mortgage Loan Schedule based on a comparison of the Mortgage Loan identifying number, Mortgagor name and street address, and in so doing the Custodian may rely on the purported due execution and genuineness of any such document and on the purported genuineness of any signature thereon.

ABFC Asset-Backed Certificates, Series 2005-WMC1 (ABFC 2005-WMC1)

Within 60 days following the Closing Date, the Trustee will review (or cause a custodian to review) the Closing Date Mortgage Loans and the Related Documents pursuant to the Pooling and Servicing Agreement and if any Closing Date Mortgage Loan or Related Document is found to be defective in any material respect and such defect has a material and adverse effect on the certificate holders and is not cured within 120 days following notification thereof to the Seller (or within 90 days of the earlier of the Seller's discovery or receipt of notification if such defect would cause the Closing Date Mortgage Loan not to be a "qualified mortgage" for REMIC purposes), the Seller will be obligated to either (i) substitute for such Closing Date Mortgage Loan an Eligible Substitute Mortgage Loan; provided, however, such substitution is permitted only within two years of the Closing Date and may not be made unless an opinion of counsel is provided to the effect that such substitution will not disqualify any of the REMICs comprising the Trust Fund as a REMIC or result in a prohibited transaction tax under the Code or (ii) purchase such Closing Date Mortgage Loan at the PURCHASE PRICE.

Home Equity Mortgage Trust 2005-1 (CSFB HEMT 2005-1)

The trustee or its custodian will deliver on the closing date an initial certification as described in the pooling and servicing agreement. The trustee or its custodian will review each mortgage file within 90 days of the closing date or a subsequent transfer date, as applicable, or promptly after the trustee's or its custodian's receipt of any document permitted to be delivered after such date.

Countrywide Alternative Loan Trust 2006-43CB (CWALT 2006-43CB)

The trustee will hold the mortgage loan documents in trust for the benefit of the holders of the certificates in accordance with its customary procedures, including storing the documents in fire-resistant facilities. The trustee will review each mortgage file relating to the mortgage loans within 90 days of the closing date (or promptly after the trustee's receipt of any document permitted to be delivered after the closing date)

Table 3: EPD and non-EPD deals -- Summary statistics and Early delinquency regressions

Panel A presents summary statistics for loans originated in securitization pools with and without early payment default clauses. Panel B reports the estimates (marginals) of a logit regression. The dependent variable is 60+ days delinquency in the first two columns and 30+ delinquency in the last two columns. Control variables include FICO score, FICO score squared, LTV, interest rate, loan amount, MSA fixed effects, and origination time fixed effects where indicated. Standard errors are clustered at MSA level and resulting t-statistics are reported in parentheses. ***, ** and * represents significance at 1%, 5% and 10% respectively. Data comes from the BlackBox loan database and spans 2005 and 2006.

Panel A: Summary Statistics

	EPD Deals	Non-EPD Deals	Difference
FICO	616.8	645.7	28.93***
LTV	78.7	78.6	-.1
Interest Rate	8.37	7.43	-.94***
Observations	99,809	484,398	

Panel B: Logit Regressions

	Pr (60+=1)	Pr (60+=1)	Pr (30+ = 1)	Pr (30+ = 1)
EPD Dummy	0.009	-0.015	-0.001	-0.023
	(0.33)	(-0.57)	(-0.03)	(-0.83)
FICO	-0.138	-0.157*	0.017	-0.001
	(-1.41)	(-1.67)	(0.20)	(-0.01)
$FICO^2$	-0.017	-0.002	-0.208**	-0.194**
	(-0.18)	(-0.02)	(-2.42)	(-2.32)
LTV	-0.112**	-0.125**	-0.090*	-0.103**
	(-1.97)	(-2.23)	(-1.79)	(-2.09)
Interest Rate	0.208***	0.160***	0.042***	0.035**
	(3.49)	(3.01)	(2.91)	(2.51)
Other Controls	Yes	Yes	Yes	Yes
Observations	584,183	584,183	584,204	584,204
Time FE	No	Yes	No	Yes
MSA FE	Yes	Yes	No	Yes

As can be observed from Panel A, mortgages in deals with EPD clauses appear to be riskier in terms of observable characteristics at time of origination. Loans in deals with EPD clauses have lower average FICO scores and higher average interest rates, but there is no significant difference in LTV between EPD and non-EPD loans. The logit regressions in Panel B test whether the presence of an EPD clause predicts the probability of a mortgage becoming 60+ days delinquent or 30+ delinquent at any time in the mortgage's history. Controlling for risk characteristics such as FICO, LTV and interest rate, the marginal effect of the EPD variable is insignificant with and without origination-time fixed effects. These results suggest that, conditional on loan observables such as FICO, LTV and interest rate, there is no significant difference in terms of unobservable risk characteristics between loans belonging to deals with and without EPD clauses.

Table 4: Summary statistics of 3:4 and 3:3 test with Transfer loans

Panel A reports summary statistics for loans in the 3:4 and 3:3 sample including loans that are transferred to servicers outside the LPS data coverage. Panel B reports summary statistics for treatment and matched sample of control loans. We attempt to match each treatment loan with up to three control loans based on FICO and interest rates similar observable characteristics. We match separately for loans that are transferred and those that are not transferred (i.e., within the sample of transferred loans, treatment and control loans are matched on similar FICO and interest rates). The absolute value of the percentage difference in both FICO and interest rates of the treatment and a control loan must be less than one percent in order to be considered a potential match. To determine the best matches, we minimize the weighted sum of the absolute value of the percentage differences in FICO and interest rates, where the relative weights for FICO and interest rates are .45 and .55, respectively. In the 3:4 (3:3) sample, the treatment group consists of securitized loans that become 30+ delinquent in the third month, transition to 60+ in the next month, and are recorded on bank's balance sheet in that month or within three months, while the control group consists of securitized loans that become 30+ delinquent in the fourth (third) month, transition to 60+ in the next month, and stay securitized in the subsequent three months.

Panel A: Summary Statistics of Unmatched Loans

	3:4 Sample					**3:3 Sample**			
	Non-Transfer		**Transfer**			**Non-Transfer**		**Transfer**	
	Treatment	Control	Treatment	Control		Treatment	Control	Treatment	Control
FICO	617.6	611.2	616.4	638.8	FICO	617.6	613.1	616.4	635.1
LTV	82.1	80.7	83.9	80.7	LTV	82.1	80.5	83.9	79.5
Interest Rate	0.082	0.083	0.085	0.075	Interest Rate	0.082	0.083	0.085	0.079
N	526	12,160	154	221	N	526	11,636	154	358

Panel B: Summary Statistics of Matched Loans

	3:4 Sample					**3:3 Sample**			
	Non-Transfer		**Transfer**			**Non-Transfer**		**Transfer**	
	Treatment	Control	Treatment	Control		Treatment	Control	Treatment	Control
FICO	616.7	615.2	612.0	612.7	FICO	616.5	615.8	624.0	625.7
LTV	82.0	80.6	81.9	82.6	LTV	82.0	80.8	84.6	82.8
Interest Rate	0.083	0.083	0.082	0.082	Interest Rate	0.082	0.082	0.084	0.084
N	511	1,490	41	42	N	507	1,483	69	81

Panel A shows that the addition of loans that are transferred introduces substantial heterogeneity across observables in the treatment and the control group in both 3:4 and the 3:3 samples. For instance, interest rate of treatment and control loans in the transfer sample differ by almost 3% in the 3:4 test and by almost 4.5% in the 3:3 test. Matching by FICO and interest rate accounts for this heterogeneity and as is visible from Panel B, the summary statistics of treatment and control loans across both the transfer and non-transfer sample are more balanced relative to Panel A.

Table 5: Hazard estimates of 3:4 and 3:3 test with Transfer loans (using matched sample)

Panel A reports the estimated hazard ratios of a Cox Proportional hazard model where the failure statuses are foreclosure and transferred for the sample of matched loans. Panel B reports the estimated hazard ratios of a Cox Proportional hazard model where the failure statuses are cure and transferred for the sample of matched loans. The regressions include FICO, LTV, interest rate, origination amount, and other controls and resulting t-statistics are reported in parentheses. ***, ** and * represents significance at 1%, 5% and 10% respectively. The matching undertaken to construct the control group is explained in Table 4.

Panel A: Hazard Regressions (Dependent Variable: Foreclosure)

3:4 Test (3 month horizon)			**3:3 Test (3 month horizon)**		
	Foreclosure	Transfer		Foreclosure	Transfer
Treatment	0.805**	5.762***	Treatment	0.859*	2.783***
	(-2.14)	(6.21)		(-1.71)	(5.82)
Treatment / Control	552 / 1,532		Treatment / Control	576 / 1,564	

Panel B: Hazard Regressions (Dependent Variable: Cure)

3:4 Test (3 month horizon)			**3:3 Test (3 month horizon)**		
	Cure	Transfer		Cure	Transfer
Treatment	1.227***	5.296***	Treatment	1.111*	3.852***
	(2.85)	(4.46)		(1.72)	(6.51)
Treatment / Control	552 / 1,532		Treatment / Control	576 / 1,564	

As we observe from both Panel A, loans in the treatment sample are significantly less likely to be foreclosed, even after controlling for propensity of these loans to be transferred to servicers outside the LPS coverage. The estimates suggest that treatment loans are about 14%-20% less likely to be foreclosed relative to loans in the control sample, controlling for other loan characteristics. Similarly, Panel B shows that the treatment loans are more likely to cure after delinquency, even after controlling for propensity of these loans to be transferred to servicers outside the LPS coverage. The estimates suggest that treatment loans are about 11%-23% more likely to cure relative to loans in the control sample, controlling for other loan characteristics.

Table 6: Robustness related to Quasi-Experiment

The table below presents robustness estimates using different specifications on the sample related to quasi-experiment in the paper. The regressions include FICO, LTV, interest rate, origination amount, squared terms of these variables, insurance and maturity dummies, age of the loan at delinquency, and MSA and origination quarter fixed effects. Marginal effects are reported for the logit regressions. Coefficients on discrete variables represent the effect of moving from 0 to 1. Standard errors are clustered at MSA level and resulting t-statistics are reported in parentheses. ***, ** and * represents significance at 1%, 5% and 10% respectively.

	3:4 (1 month)	3:4 (3 month)	3:4 (3 month)	1:1+2:2+3:3	3:3 (3 month)	3:4 (3 month)
Criteria	*1 month tracking window*	*3 month tracking window and quarter of delinquency fixed effects*	*Matched sample with matching done on FICO and interest rates and upto three matched loans in control sample for each treatment loan*	*Sample includes loans that are securitized at origination. Specification is estimated as a fully interacted model. Interactions are with a dummy variable that specifies if a loan is securitized at origination.*		
Mean Control	0.35	0.36	0.39	0.40	0.40	0.37
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.057**	-0.066**	-0.084**	-0.041**	-0.070**	-0.062**
	(-2.13)	(-2.51)	(-2.05)	(-2.33)	(-2.45)	(-2.34)
Origination Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
MSA FE	Yes	Yes	Yes	Yes	Yes	Yes
Delinquency Quarter FE	No	Yes	No	No	No	No
Loan Age	Yes	Yes	Yes	Yes	Yes	Yes
Loan Origination Period	05Q1–06Q4	05Q1–06Q4	05Q1–06Q4	05Q1–06Q4	05Q1–06Q4	05Q1–06Q4
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes
Clustering Unit	MSA	MSA	MSA	MSA	MSA	MSA
Treatment / Control	360 / 11,798	481 / 11,196	410 / 1,231	3,092 / 27,796	681 / 12,542	690 / 13,038

The results in this table depict the robustness of results related to foreclosure in the quasi-experiment. In Column (1), we track the loans for one month horizon. Even though this reduces the sample of treatment loans, the results are significant and suggest that treatment loans are 5.7% less likely to be foreclosed upon as compared to loans in the control group. Column (2), takes the specification in Table 9 of the paper and adds in time of delinquency quarter fixed effects. The results from this specification are similar in magnitude to those in the paper. Similarly, estimates in Column (3) suggest that treatment loans are 8.4% less likely to be foreclosed upon relative to loans in the control group. In Columns (3) to (6), we include loans that are securitized at origination. The specification in these tests includes a fully interacted set of variables with a dummy that indicates whether a loan was securitized at origination. As is shown, our results are qualitatively similar to those reported in the paper.

Table 7: Foreclosure Results Conditional on 60+ Days Delinquency Controlling for Quarter of Delinquency Fixed Effects

Panel A reports the marginal effects of a logit regression and Panel B reports the estimated hazard ratios from Cox-proportional hazard models of the transition from delinquency to foreclosure/transfer for all loans and the subset of high quality loans. High quality loans consist of loans with FICO above 680 and full documentation. Portfolio is a dummy which indicates that the loan was bank-held at the time of first 60+ days delinquency. The regression, in addition to covariates in the paper, also includes delinquency-quarter time fixed effects. Standard errors are clustered at MSA level and resulting t-statistics are reported in parentheses. All loans in the sample are originated between 2005 and 2006. ***, **, and * represent significance at 1%, 5%, and 10%, respectively.

Panel A: Logit Regression (Dependent Variable: Foreclosure)

	All Loans	*High Quality Loans*
Mean Securitized	0.23	0.23
Portfolio	-0.030***	-0.053***
	(-14.13)	(-14.03)
Other Control Variables (Table 3 of the paper)	Yes	
MSA Fixed Effects	Yes	
Quarter of Origination Fixed Effects	Yes	
Quarter of Delinquency Fixed Effects	Yes	
N	327,438	13,822

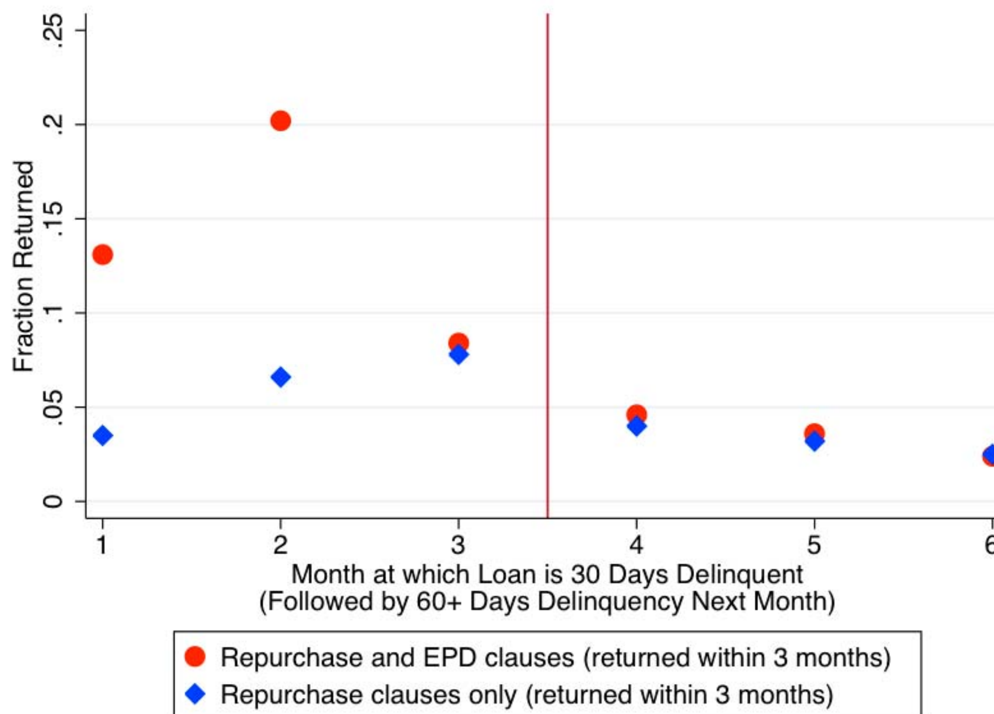
Panel B: Hazard Regression (Dependent Variable: Foreclosure)

	All Loans		*High Quality Loans*	
	Foreclosure	Transfer	Foreclosure	Transfer
Portfolio	0.772***	3.341***	.715***	2.274***
	(-19.55)	(47.93)	(-6.40)	(5.69)
Other Control Variables (Table 3 of the paper)		Yes		
MSA Fixed Effects		Yes		
Quarter of Origination Fixed Effects		Yes		
Quarter of Delinquency Fixed Effects		Yes		
N	316,772		15,203	

The estimates from Panel A indicate that loans held on portfolio are 3% less likely to be foreclosed upon compared to securitized loans (13% in relative terms) after controlling for observable risk characteristics, MSA, quarter of origination and quarter of delinquency fixed effects. Panel B employs a hazard model and shows that portfolio loans are 22% less likely to be foreclosed upon relative to securitized loans after controlling for observable risk characteristics, MSA, quarter of origination and quarter of delinquency fixed effects.

Figure 1: Fraction of Loans Likely Returning to the Bank
(For deals with repurchase and EPD clauses and with repurchase clauses only)

This figure plots the fraction of loans that likely return on portfolio as a function of the first time they become delinquent after securitization across deals with and without EPD clauses. Note that all the deals have general reps and warranty agreements. More precisely, the figure shows a fraction of loans that becomes 30-day delinquent followed by 60-day delinquency for the first time in a given month after securitization that return on portfolio. We present the graph for three month horizon after the loan hits 60-day delinquency.



We used the additional data which has information on payment history of securitized mortgage loans to classify a loan as being returned to the originator/issuer of the securitized loan if the payment history of the loan changes progressively from being 30 day delinquent to 60 day delinquent to being voluntarily prepaid in full. The method is not perfect and rests on what we believe is a plausible assumption that seriously delinquent subprime borrowers would have little incentives to voluntarily prepay the loan in full early on in the life of a loan. This is reasonable since mortgage contracts in the subprime market make it unattractive for borrowers to voluntarily prepay the entire amount by imposing prepayment penalties. Moreover, it is also less likely that borrower's voluntarily decide to prepay the loan within the first 3-4 months due to changes in mortgage interest rates or other macro movements that might make prepayment an attractive option.

Based on the sample of around 400 deals, we examine the fraction of loans that are classified as returned to lender based on the methodology above. We examine this return behavior for both types of deals -- (a) those that have repurchase clauses only and (b) those that have EPD clauses in addition to repurchase clauses. As can be observed in the figure, we find that, on average, loan return fraction is higher in all the deals for the first three months relative to months after the first 90 days. Moreover, deals which have EPD clauses in addition to the general reps and warranty agreements have significantly higher returns during the three month period. Overall, the pattern here suggests that identification in our sample is most likely driven by loans coming from both types of deals.