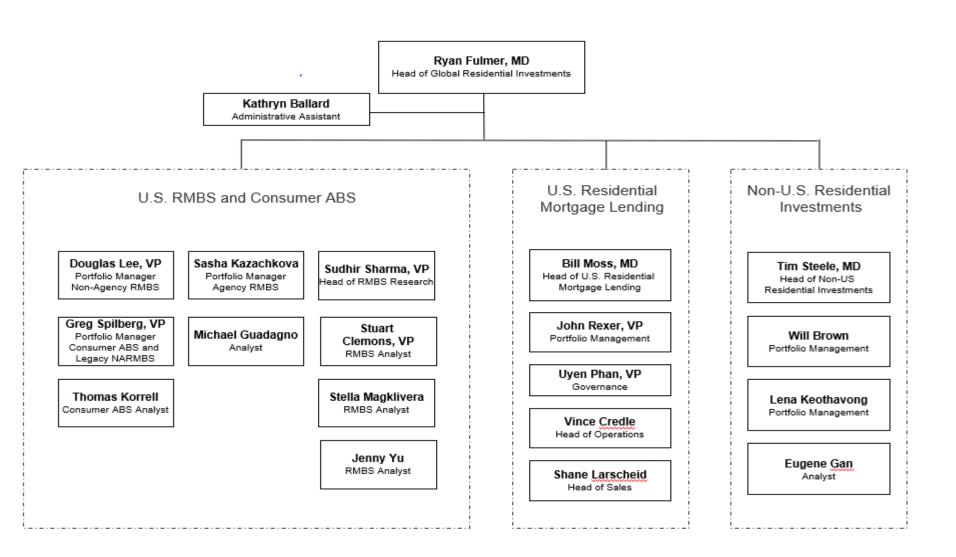
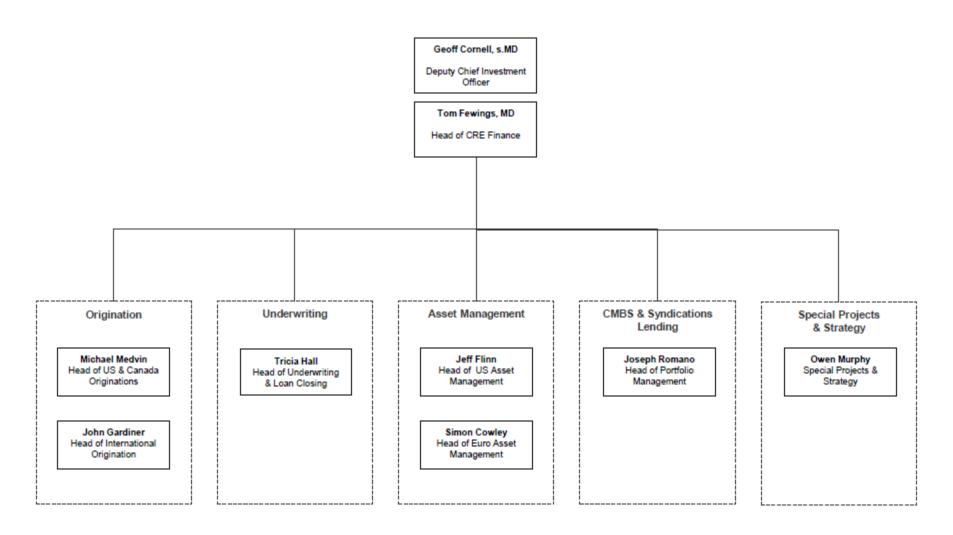
Introduction of Team - Global Residential Investments





Introduction of Team – Global CRE Finance





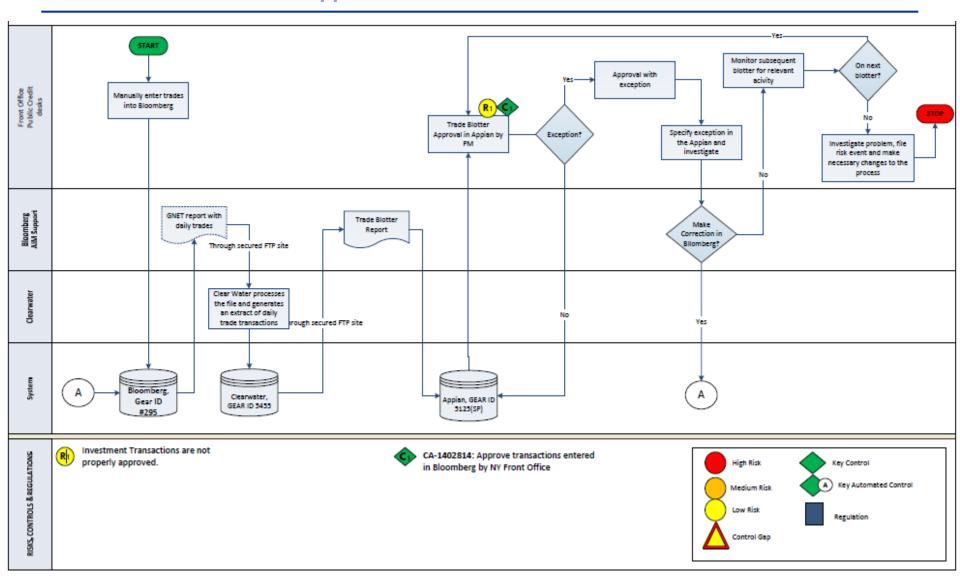
SOX Control – NY Trade Approval

Control CA-14	102814 (Risk – Low, Frequency – Daily)								
Description	Additional Description								
Daily, NY Portfolio Managers approve trades entered in Bloomberg AIM trade system. The authorization of trades is evidenced through email or Appian workflow tool approval of trade blotters.	This control covers NY emerging markets, high grade, high yield, municipal bond and structured product portfolios.								
Control CA-1403936 (Risk – Low, Frequency – Daily)									
Description	Additional Description								
Daily, the Structured Products Portfolio Managers categorize all purchased securities on its blotter as credit impaired or not. Approval of this assessment is evidenced through Portfolio Manager's sign off of daily PDF trade blotters.	A trade blotter is generated overnight from Clearwater that identifies whether or not the securities were purchased credit impaired. The blotter is automatically emailed to the front office and Investment Accounting. The blotter is reviewed and signed by the PM to evidence their approval of the information contained on the blotter, including the Y/N flag indicating whether each trade was designated as purchased credit impaired based on pre-trade review of the credit analysis summary. Documentation supporting the credit impaired assessment is maintained by the front office's.								

On May 7 2019, Thomas Korrell verified that the control descriptions are accurate for 2019. ✓

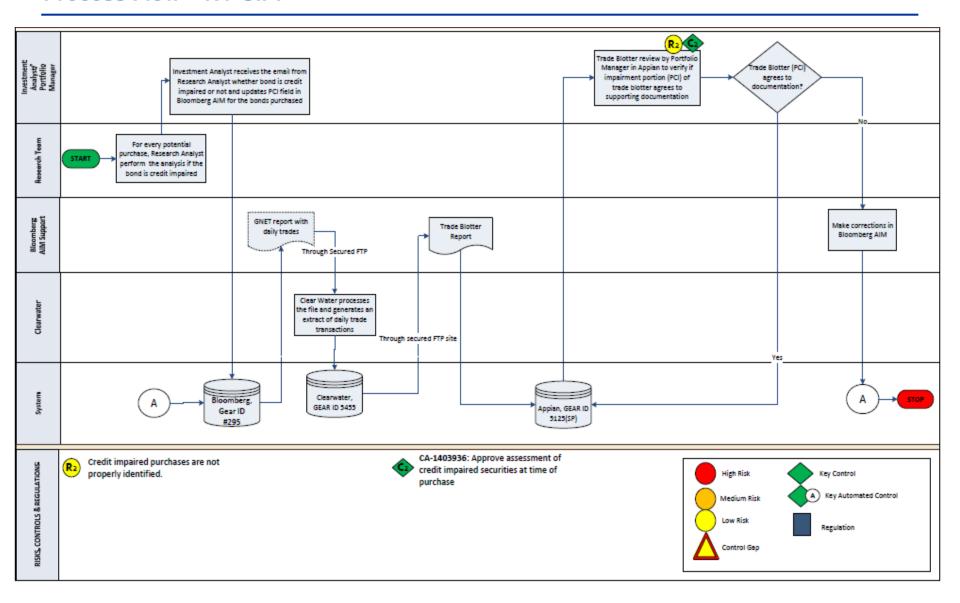


Process Flow – NY Trade Approval





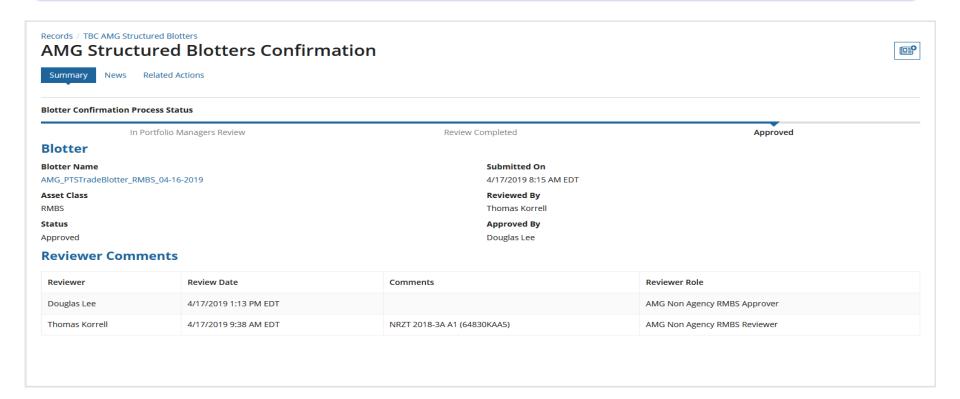
Process Flow - NY CIPI





Walkthrough Sample – NY Trade Approval - CA-1402814

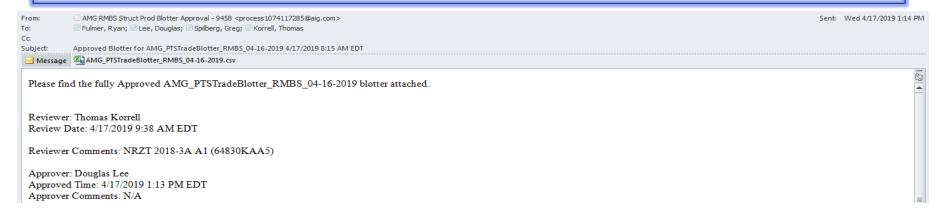
Evidence of Appian approval of Daily trades - Structured Products NY

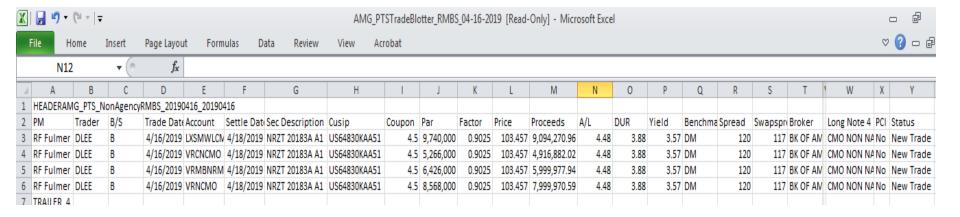




Walkthrough Sample - NY Trade Approval - CA-1402814

Approved Structured Products NY Trade Blotter

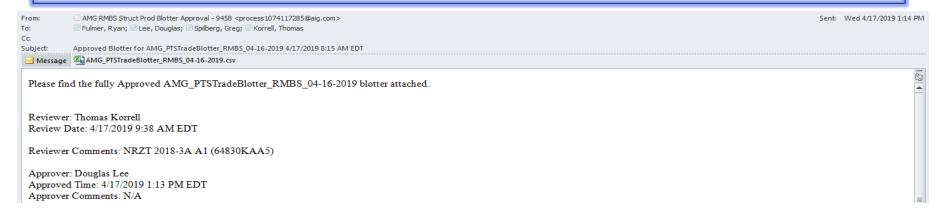


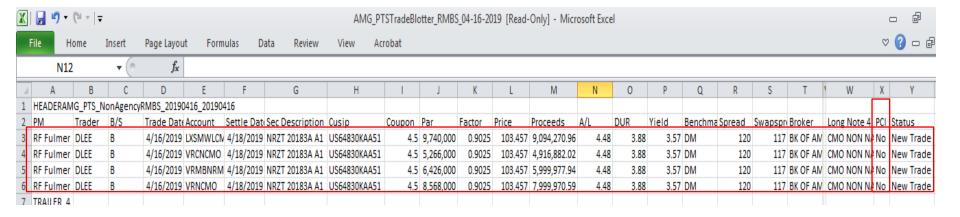




Walkthrough Sample - NY Trade Approval - CA-1402814

Approved Structured Products NY Trade Blotter

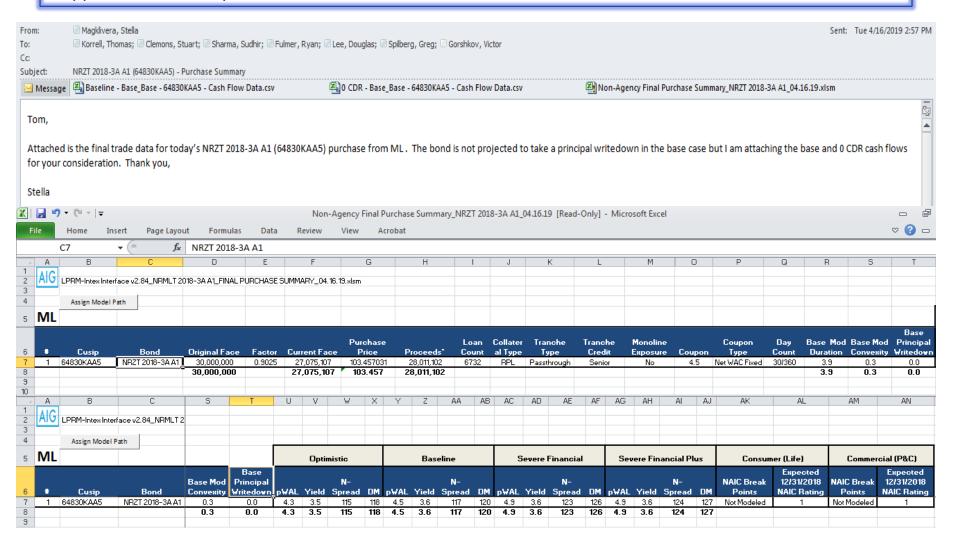






Walkthrough Sample – NY CIPI - CA-1403936

Support for Credit Impairment Purchase Identification assessment





NY OTTI Process and Cashflow review – SOX Controls

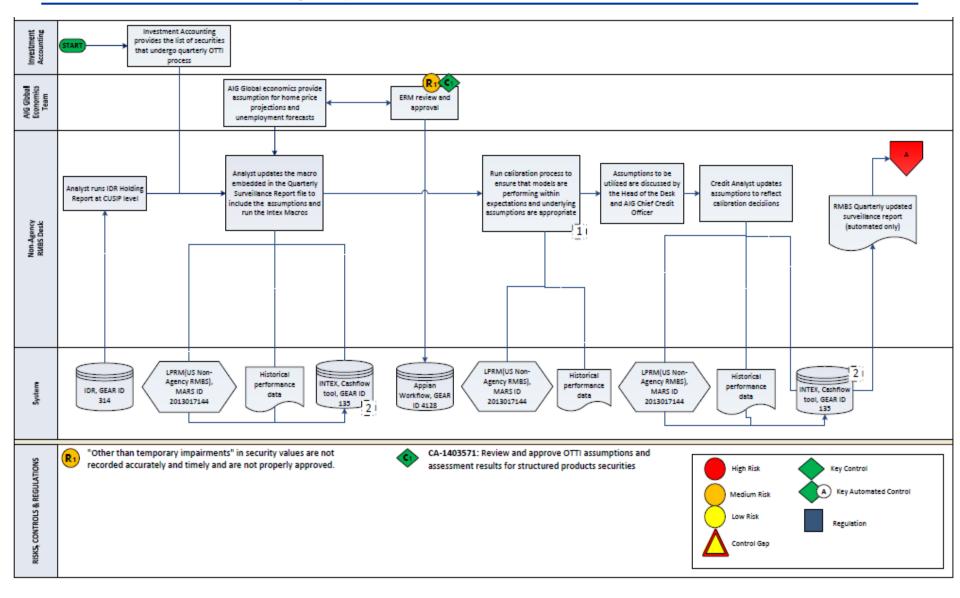
Control CA-1403571 (Risk – Me	edium, Frequency – Quarterly)
Description	Additional Description
Quarterly, the Structured Product Group's Senior Management and the AIG Chief Credit Officer review and approve assumptions utilized in the structured products OTTI process contained within the OTTI memo. The OTTI memo includes results of the OTTI assessments. Approval is evidenced via sign off of the memo by the AMG Chief Credit Officer or ERM Chief Risk Officer.	
Control CA-1403572 (Risk – Me	edium, Frequency – Quarterly)
Description	Additional Description
Quarterly, the Head of each Structured Products desk reviews and approves its OTTI Investment Accounting template that contains recovery values and related cash flow files prior to submission to Investment Accounting. Management review is documented via email or Appian workflow tool approval of the investment Accounting template.	
Control CA-1404325 (Risk – Me	edium, Frequency – Quarterly)
Description	Additional Description
Quarterly, the Investment Analyst signs off on the analysis where the OTTI analysis is performed manually. Management review and approval is evidenced through email or Appian workflow tool approval of the OTTI analysis file.	
Control CA-3806719 (Risk – I	Low, Frequency – Quarterly)
Description	Additional Description
Quarterly, the Head of Structured Product desk reviews and approves the cash flows calculated for non-credit impaired securities based on the population provided by Investment Accounting. The approved cash flow file is uploaded to Investment Accounting Sharepoint. Management review is documented via email or Appian workflow tool.	

On May 07 2019, Ryan Fulmer (US RMBS), Joseph Romano (US CMBS), Greg Spilberg (Public ABS), verified that these control descriptions are accurate for 2019.



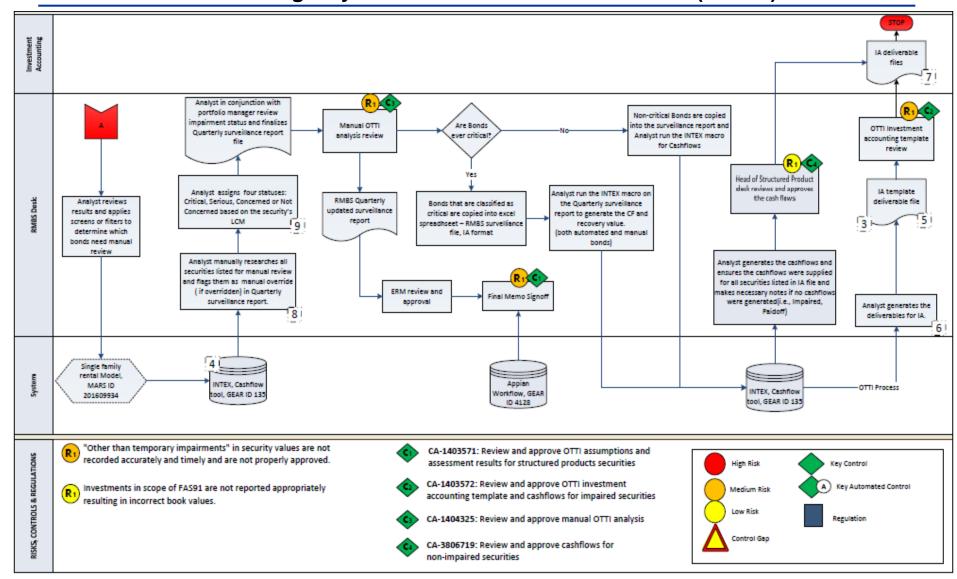


Process Flow - US Non-agency RMBS OTTI and cashflow review



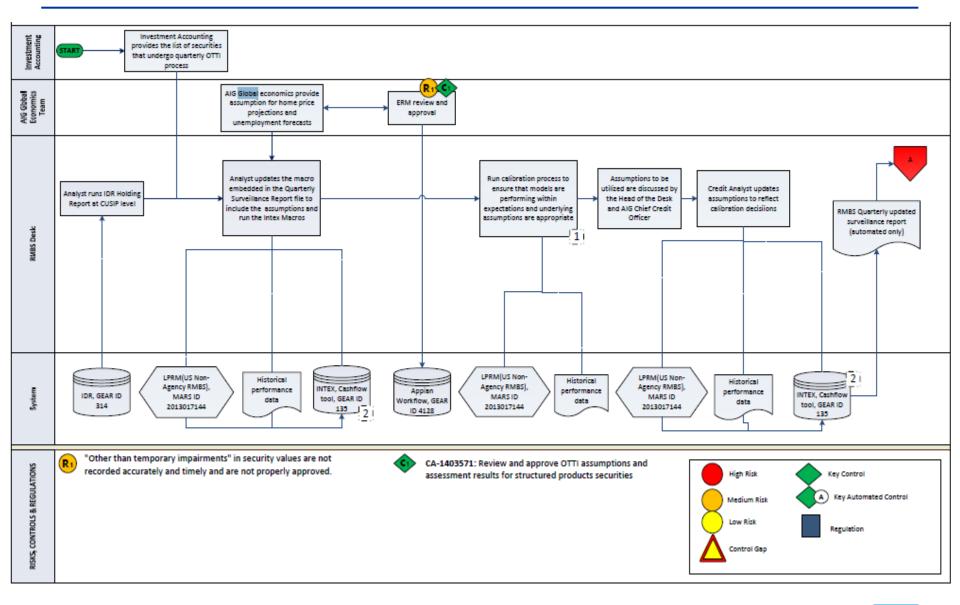


Process Flow - US Non-agency RMBS OTTI and cashflow review (Contd.)



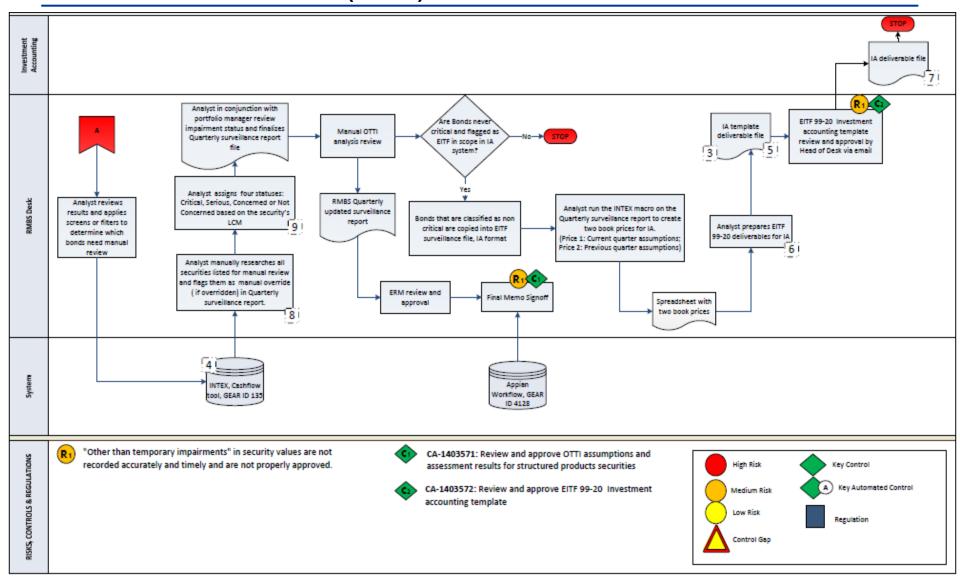


Process Flow - US EITF 99-20



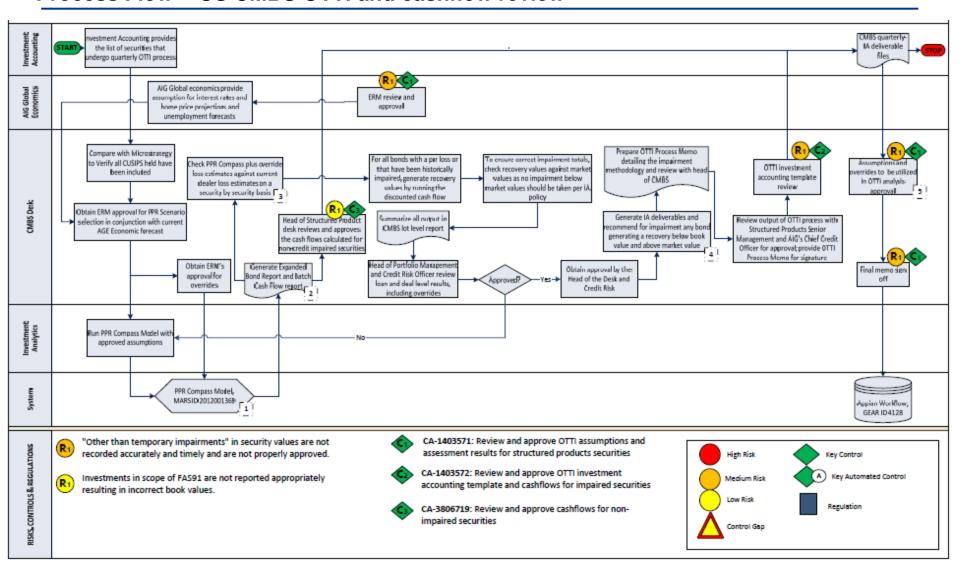


Process Flow - US EITF 99-20 (contd.)



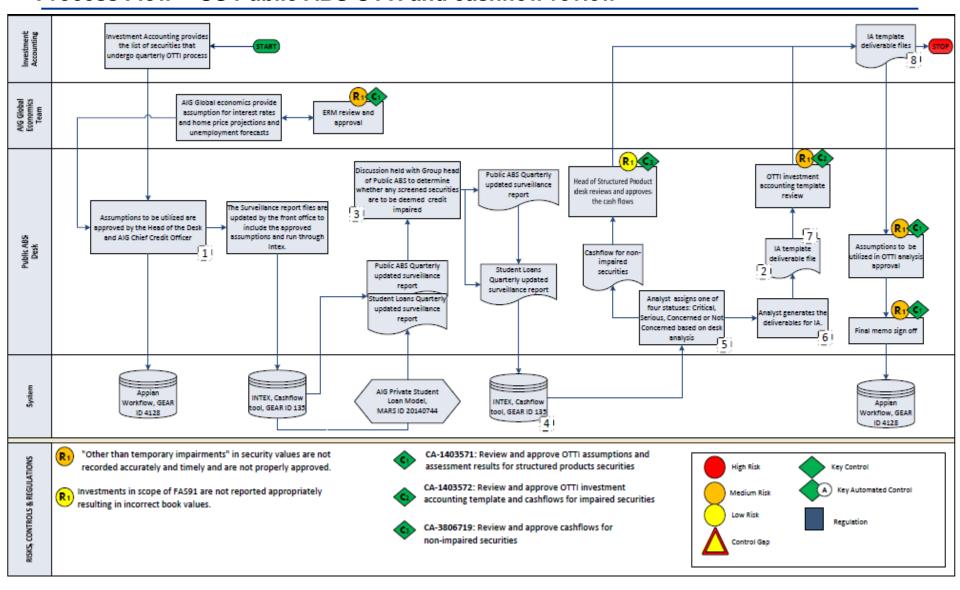


Process Flow - US CMBS OTTI and cashflow review





Process Flow - US Public ABS OTTI and cashflow review





Approval of RMBS OTTI Analysis and email to Investment Accounting communicating the deliverables of Q1 2019 – GAAP & STAT

Clemons, Stuart

Sent: Tue 3/12/2019 6:27 PM

To: Kang, Samuel; Silva, Rosa@InvestAcct; Yu, Connie
Cc: Fulmer, Ryan; Sharma, Sudhir; Magklivera, Stella
Subject: Q12019 Non Agency OTTI Templates Uploaded

Sam.

From:

I have uploaded the Q1 2019 Non Agency RMBS GAAP and STAT deliverables templates to Share Point. The Discounted Recovery Value (Column W) is based on the "discount rate to use" provided to us in column BJ. If there are any changes to these discount rates, then we will need to provide corrected RVs.

- 1Q2019_OTTI Domestic GAAP Non Agency RMBS.xlsx
- 1Q2019 OTTI Domestic STAT Non Agency RMBS.xlsx

From: Fulmer, Ryan

To: Clemons, Stuart

Cc: Magklivera, Stella; Sharma, Sudhir
Subject: RE: Q12019 OTTI Deliverables Templates

Approved, subject to IA's comfort with the discount rates.

From: Clemons, Stuart

Sent: Tuesday, March 12, 2019 4:37 PM
To: Fulmer, Ryan < Ryan.Fulmer@aig.com>

Cc: Magklivera, Stella < Stella . Magklivera@aig.com>; Sharma, Sudhir < Sudhir . Sharma@aig.com>

Subject: Q12019 OTTI Deliverables Templates

Ryan,

I have filled in the GAAP and STAT OTTI deliverables templates that contain our expected lifetime principal and interest, sum of principal as a % of par, Undiscounted RV, and also the Discounted RV using the "Discount rate to use" that IA has supplied in column BJ.

The files can be found here:

M:\StructuredProducts\RESI CREDIT\OTTD Memos\2019 Q1\Deliverables Templates

- 1Q2019 OTTI Domestic GAAP Non Agency RMBS.xlsx
- 1Q2019_OTTI Domestic STAT Non Agency RMBS.xlsx

Please let me know if you approve to upload these deliverables templates to Share Point.



Example of Investment Accounting Template Q1 2019 – RMBS US GAAP - Extract

(📙	- (°	(21 × ±						10	¿2019_OT	TI Domestic	GAAP Non Ag	gency R	MBS - M	icrosoft Excel									_ 6	P
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E	BatchF	Record	System		_		'	Orig Par		Market Value		MVvsRV				- Principal	%CurPa		ted Sum of			Comme	Collate	AL C
1 5			Primary ID	Security De	Jeso 💌	Lot Number 🔻 (GAAP 🔻	USD GAAL 🔻	Gain/Loss ▼			RE Credit Analys 🔻			r ¥	Recyd 🔻			,if use 🔻	nt3	al Ma	🚄 al'
4 (Credit I	mpaired S	Securities																					
5	7		78 000780AW6	ABN AMR/	RO Mortgage Co	o 182723382	286335.89	3739532	2 234699	248292.33	3 13593.41	105.75	J Asset Ma	Un-Assigned	81.93	284,908	99.50	69,265	354,173	123.88			RMBS	NO BI
6	383		79 00441TAA1		urities Corp. SEF				4895432	5924922.61				Un-Assigned	68.07	5,997,793		1,592,865	7,590,658				RMBS	
7	384	13130887	80 00441TAA1	Ace Secur	urities Corp. SEF	EF 218842034	8519885.65	50000000	5366621	6495201.28	1128580.28	121.07	J Asset Ma	Un-Assigned	68.07	6,575,085	5 77.17	1,746,179	8,321,265	97.91			RMBS	NO BI
8	385	1313088	81 00441TAA1	Ace Secur	urities Corp. SEF	EF 217985953	1459456.41	1 8565000	919302	1112627.98	193325.98	121.07	j Asset Ma	Un-Assigned	68.07	1,126,312	77.17	299,121	1,425,433	97.91			RMBS	NO RE
9	386	13130887	32 00441TAA1	Ace Secur	urities Corp. SEF	EF 217985961	8519885.65	50000000	5366621	6495201.28	1128580.28	121.0?	j Asset Ma	Un-Assigned	68.07	6,575,085	5 77.17	1,746,179					RMBS	NO RA
10	387	13130887	33 00441TAA1	Ace Secur	urities Corp. SEF	EF 217985956	8519885.65	50000000	6341484	6495201.28	153717.28	102.42	. Asset Ma	Un-Assigned	68.07	6,575,085	5 77.17	1,746,179	8,321,265	97.91			RMBS	NO B
11	388		34 00441TAA1	Ace Secur	urities Corp. SEF								Asset Ma	Un-Assigned	68.07			1,746,179					RMBS	NOB'
12	389		85 00441TAA1		urities Corp. SEF		8519885.65							Un-Assigned	68.07			1,746,179					RMBS	NOR
13	390		86 00441TAA1		urities Corp. SEF									Un-Assigned	68.07			1,746,179					RMBS	
14			87 00441TAA1		urities Corp. SEF		8223393.63							Un-Assigned	68.07			1,685,412					RMBS	
15	392		88 00441TAA1		urities Corp. SEF									Un-Assigned	68.07			1,746,179					RMBS	
16			89 00441TAA1		urities Corp. SEF									Un-Assigned	68.07	1,126,312		299,121	1,425,433				RMBS	
17	394		00 00441TAA1		urities Corp. SEF									Un-Assigned	68.07	1,126,312		299,121	1,425,433				RMBS	
22	404		01 004421MW0		URITIES CORP.									Un-Assigned	98.21	4,625,982		783,138			\perp		RMBS	
23	405		02 004421MW0		URITIES CORP.									Un-Assigned	98.22			207,179					RMBS	
24	415		12 00442KAC5		urities Corp. SEF		8750053.87							Un-Assigned	50.55			1,228,303					RMBS	
25	416		13 00442KAC5		urities Corp. SEF									Un-Assigned	50.55			258,987	1,308,813				RMBS	
26	417		14 00442KAD3		urities Corp. SEF		2274003.36							Un-Assigned	51.18	1,293,971		331,447	1,625,418				RMBS	
27	418		15 00442KAD3		urities Corp. SEF la Data Martaga									Un-Assigned	51.18	3,043,540		779,593					RMBS	
41	493 496		12 007036QE9		le Rate Mortgag In Data Martana	_								Un-Assigned	90.11	2,252,306 5,656,418		327,514 1,007,700	2,579,820 6,664,118				RMBS	
42 43	496 497		15 007036RU2 16 007036RU2		le Rate Mortgag le Rate Mortgag									Un-Assigned Un-Assigned	94.23			1,007,700					RMBS	
44	498		17 007036802			_				6872792.45				un-Assigned Un-Assigned	94.23	7,066,863		1,408,152					RMBS	
54	436 508		27 0070363C1		le Rate Mortgag le Rate Mortgag	2		1 53114000						a Un-Assigned Un-Assigned	76.76			926,594					RMBS	
846			10 36185MBL5		ie Hate Mortgag ortgage Corpora	-								un-Assigned Un-Assigned	92.29	147,784	86.58	22,165	169,949	107.93			RMBS	
847	42896		41 36185MBL5		ortgage Corpora ortgage Corpora		2050970.55							un-Assigned Un-Assigned	93.00			266,320					RMBS	
848			41 36165MBL5		ortgage Corpora ortgage Corpora		2050970.55							a Un-Assigned B Un-Assigned	93.00			266,320					RMBS	
849			13 36185MBL5		ortgage Corpora ortgage Corpora									Un-Assigned	93.00			266,320					RMBS	
850			96 US126694GR											Un-Assigned	98.61	3,027,214		635,464			+		RMBS	
:851			37 US126694GR:											Un-Assigned	98.98	3,027,214		635,464	3,662,678				RMBS	
852			8 US126694GR											Un-Assigned	98.98			635,464					RMBS	
855		102222			74 114		0.222	1000000	C.D.I.D.				1122111	011 11219112		0,000,000			0,552,5	1.0.0			11.12	Ť
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.656 N			79 000780NC6		RO Mortgage Co	o 191029785	979973.77	7 3639951	1 949912	964065.46	14153.88	101.44	A Occat Mr	un-Assigned			+						RMBS	MC I
858	9		80 000780ND4		RO Mortgage Co									Un-Assigned									RMBS	
050	10		01 0001001104					42220EU						II- A									DMDC	

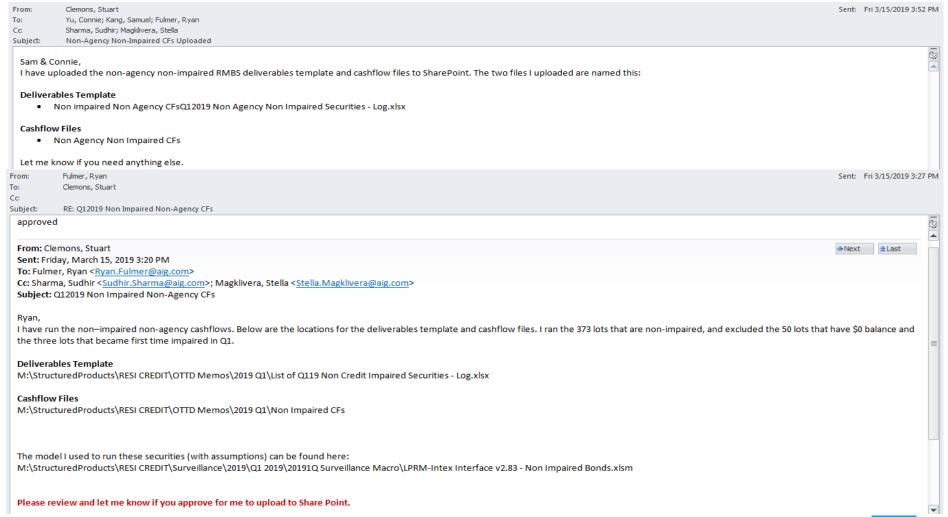


Example of Investment Accounting Template Q1 2019 – RMBS US STAT - Extract

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	Batch Seq#	Record Control #		Security Desc	GL Group		Accounti ngsyspo rtfolion		Lot Number	Quantity	Orig Par Value USD	Book Value USD GAAP	Market Value USD GAAP	USD GAAP Unrealiz ed Gain/Lo ss		RE Rtg Owner BL	RE Credit Analyst	Recvry Val % of Cur Par- Struct	Undisc Sum of Principal Recvd		Undisc Sum of Interest Recvd
4	Impaire	d Securit	ties																		
5	471	13130990	007034BI	Adjustab) (129695	AIG-VALI	(AIG-VALI	215475737	9165083.22	17791000	8098307.34	8463205.56	364898	104.506	Asset Ma	Un-Assigned	92.84	8,612,753	94.0	2,255,726
6	472	13130991	007034BI	Adjustab) (0 129024	AIG-AH F	AIG-AH P	218556262	9165083.22	17791000	8111497.1	8463205.56	351708	104.336	Asset Ma	Un-Assigned	91.76	8,612,753	94.0	2,255,726
7	767	13131516	02149QA	Country	v (129214	AIG-LEX-	AIG-LEX-1	217984161	12658374.8	39425750	10686159.23	11157361.21	471202	104.409	Asset Ma	Un-Assigned	82.83	12,266,534	96.9	2,775,650
8	768	13131517	02149QA	Country	v (128706	AIG-AGL	AIG-AGL-	226229165	7705649.13	24000000	6864743.08	6791923.27	-72819.8	98.9392	Asset Ma	Un-Assigned	84.28	7,467,120	96.9	1,689,647
9	769	13131518	02149QA	Country	v (128706	AIG-AGL	AIG-AGL-	218841228	15802761.3	49219250	13972110.52	13928890.4	-43220.1	99.6907	Asset Ma	Un-Assigned	81.59	15,313,586	96.9	3,465,131
10	779	13131535	02150TA	Country	v (129024	AIG-AH F	AIG-AH P	218557298	6598342.08	20446000	5348549.76	5929925.41	581376	110.87	Asset Ma	Un-Assigned	79.41	6,434,972	97.5	1,502,961
11	780	13131536	02150TA	Countryv	v (129024	AIG-AH F	AIG-AH P	218557295	16136021.9	50000000	12981248.55	14501431.59	1520183	111.711	Asset Ma	Un-Assigned	79.30	15,736,507	97.5	3,675,440
22	2534	13134213	05541YA	BCAP LLC	(129695	AIG-VAL	(AIG-VALI	215475785	7082925.27	12883000	6159720.16	6357665.31	197945	103.214	Asset Ma	Un-Assigned	81.92	6,793,815	95.9	1,198,216
23	2535	13134214	05541YA	BCAP LLC		129024	AIG-AH F	AIG-AH P	218556336	3035879.88	5521905	2565431.71	2725019.32	159588	106.221	Asset Ma	Un-Assigned	82.12	2,911,962	95.9	513,579
24	2797	13134670	05946XS0	Banc of	Δ (128760	AIG-AGL	AIG-AGL-	182752011	2333324.44	12614400	2319344.7	2443504.96	124160	105.353	Asset Ma	Un-Assigned	96.97	2,323,981	99.6	788,757
25	2934	13134856	05955YA	Banc of	Δ (129695	AIG-VALI	(AIG-VALI	215475812	4607579.51	7973276	3744278.49	4228707	484429	112.938	Asset Ma	Un-Assigned	79.35	3,647,527	79.2	1,637,256
26	2935	13134857	05955YA	Banc of	Δ (129695	AIG-VALI	(AIG-VALI	215475793	10966228.3	18976724	8911536.46	10064496.16	1152960	112.938	Asset Ma	Un-Assigned	79.35	8,681,263	79.2	3,896,737
27	2936	13134858	05955YA	Banc of	Δ (129695	AIG-VALI	(AIG-VALI	215475823	15577243.3	26955945	12658605.83	14296356.15	1637750	112.938	Asset Ma	Un-Assigned	79.35	12,331,510	79.2	5,535,215
28	2961	13134938	05990QA	Banc of	Δ (129024	AIG-AH F	AIG-AH P	218556354	1927421.2	4229388	1297852.88	1010714.81	-287138	77.8759	Asset Ma	Un-Assigned	63.84	1,214,787	63.0	485,602
29	2962	13134939	05990QA	Banc of	Δ (129497	AIG-USL-	AIG-USL-	218556102	4496599.74	9867000	3034155.86	2357958.9	-676197	77.7138	Asset Ma	Un-Assigned	63.87	2,834,051	63.0	1,132,891
30	3239	13135448	073868A	Bear Ste	ā (128706	AIG-AGL	AIG-AGL-	182756465	2049487.39	21654000	1557232.47	2026939.33	469707			Un-Assigned	103.95	2,417,705	118.0	340,710
31	3251	13135460	07386HQ	Bear Ste	ā (0 129214	AIG-LEX-	AIG-LEX-1	217984200	4812091.82	50000000	4140638.34	4376449.77	235811	105.695	Asset Ma	Un-Assigned	92.45	4,484,703	93.2	953,963
32		13135461								4812091.82		4140638.34					Un-Assigned	92.45	4,484,703	93.2	953,963
33		13135462								1775969.85		1528160.94					Un-Assigned	92.45	1,655,142	93.2	352,073
34	3254	13135463	07386HQ	Bear Ste	ē (4812091.82		4214670.86					Un-Assigned	90.49	4,484,703	93.2	953,963
35		13135464								4715849.98		4130377.39					Un-Assigned	90.49	4,395,009	93.2	934,883
36	3256	13135465	07386HQ	Bear Ste	ē (0 128706	AIG-AGL	AIG-AGL-	226229168	4812091.82	50000000	4188194.43	4376449.77	188255			Un-Assigned	90.98	4,484,703	93.2	953,963
261		13148342							218561317		80150000	0					Un-Assigned	-	-	0.0	-
262 265		13191244							218840797			0			_		Un-Assigned	89.81	2,425,110	94.8	111,240
	Non Im	paired Se	curities																		
		13130823		Accept:		120547	ALC LIST	AIC UC	101614025	9187451.98	15000000	9154169.24	9209497.27	EEDOO	100 604	Acces \$4	Un Assistand				
267 268		13130823												55328			Un-Assigned				
										6730894.15		5933679.16					Un-Assigned				
269		13131004								2651546.45							Un-Assigned				
270		13131568		Country	ν (0 129214	AIG-LEX-	I AIG-LEX-1	21/985004	10505596.2	50000000	9260084.04	9982107.59				Un-Assigned				
14 4	PPI	Sheet1													4	III					

Walkthrough Sample – US RMBS cashflow review - CA-3806719

Approval of Cashflow files for non-impaired non-agency RMBS and email to Investment Accounting communicating the cashflow deliverables



Walkthrough Sample – US RMBS cashflow review - CA-3806719

Example of Cashflow file for non-impaired securities posted in the IA sharepoint - Extract

X	₩ 19 • (1	¥ + -					NI Base - Base_Ba	ise - 00077B	35D1 - Cash	Flow Data -	Microsoft Exce
F	ile Ho	me Insert	t Page L	ayout Fo	rmulas D	ata Review	View Acrobat				
	A54	-	(-	<i>f</i> _∗ Period	d						
	А	В	С	D	E	F	G	Н	I	J	K
53											
54	Period	Principal	Interest	Total CF	Balance	Princ Writedown	Gross Writedown				
55	Total	150535.58	34759.23	185294.81		0	0				
56	20190228	0	0	0	150535.58	0	0				
57	20190325	2540.06	721.32	3261.37	147995.52	0	0				
58	20190425	2534.01	709.15	3243.15	145461.51	0	0				
59	20190525	2584.5	697	3281.51	142877.01	0	0				
60	20190625	2921.93	684.62	3606.55	139955.08	0	0				
61	20190725	2002.2	670.62	2672.82	137952.88	0	0				
62	20190825	2322.97	661.02	2984	135629.91	0	0				
63	20190925	2768.36	649.89	3418.25	132861.55	0	0				
64	20191025	2433.15	636.63	3069.78	130428.4	0	0				
65	20191125	2524.99	624.97	3149.96	127903.41	0	0				
66	20191225	2426.79	612.87	3039.66	125476.62	0	0				
67	20200125	2907.66	601.24	3508.91	122568.95	0	0				
68	20200225	1973.47	587.31	2560.78	120595.49	0	0				
69	20200325	1815.95	577.85	2393.81	118779.53	0	0				
70	20200425	2461.63	569.15	3030.78	116317.91	0	0				
71	20200525	2740.3	557.36	3297.66	113577.61	0	0				
72	20200625	2043.88	544.23	2588.11	111533.72	0	0				
73	20200725	2437.33	534.43	2971.76	109096.39	0	0				
74	20200825	1961.3	522.75	2484.05	107135.09	0	0				
75	20200925	1894.24	513.36	2407.6	105240.85	0	0				
76	20201025	2044.42	504.28	2548.7	103196.43	0	0				
77	20201125	1914.21	494.48	2408.69	101282.22	0	0				
78	20201225	1155.25	485.31	1640.56	100126.97	0	0				
79	20210125	1804.12	479.78	2283.9	98322.85	0	0				
80	20210225	2672.24	471.13	3143.37	95650.61	0	0				
81	20210325	1550.78	458.33	2009.11	94099.83	0	0				
82	20210425	1857.59	450.9		92242.24	0	0				
I4 →	NI	Base - Base	_Base - 00	0077B5D1	<u> </u>				□ ◀		



Approval of Manual OTTI Analysis and assumptions for Q1 2019 - Extract

9928: Assumptions: US - Q1/2019 for Non-Agency RMBS

Summary News

Detail Status : Approved
Initiating

Related Actions

Review In-Progress

Approval In-Progress

Approved

General Information

Subject: Assumptions: US - Q1/2019 for Non-Agency RMBS

Year: 2019

Quarter: Q1
Region: US
Initiator:

Second Initiator: Sudhir Sharma

Request Submission Mar 11, 2019 1:41 PM

Date:

Final Approval Due Mar 20, 2019 8:00 PM

Date:

Asset Class: Non-Agency RMBS

Document Type: Assumptions

Document Version 2 for approval

Current Document

Version #	Attachment Name	Document Type	Role	Uploaded By	Uploaded On	L
2	9928_General Document Approval Final PDF	Ф	System	System	3/14/2019 6:03 PM EDT	
2	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	cp Cp	Initiator		3/11/2019 5:21 PM EDT	

∨Reviewers Completed/In-Progress

Reviewer Level	Reviewer Name	Reviewed Documents Name	Comments	Decision	Assigned On	Completed On
1	Ryan Fulmer	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	revised version approved	V	3/11/2019 5:21 PM EDT	3/11/2019 6:01 PM EDT
1	Ryan Fulmer	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version1	please make changes discussed	4	3/11/2019 1:44 PM EDT	3/11/2019 4:51 PM EDT



Approval of Manual OTTI Analysis and assumptions for Q1 2019 - Extract

▼Approvals Completed/In-Progress

Approval Level	Approver Name	Approved Documents Name	Comments	Decision	Assigned On	Completed On
3	Andrew Payne	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	Approved.	I	3/14/2019 1:43 PM EDT	3/14/2019 6:03 PM EDT
2	David Naranjo Setien	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	Approved.	I	3/13/2019 2:50 PM EDT	3/14/2019 12:36 PM EDT
2	Kenneth Mcgloin	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	Approved	I	3/13/2019 2:50 PM EDT	3/13/2019 6:47 PM EDT
2	David Kogan	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	returned as requested	4	3/13/2019 11:54 AM EDT	3/13/2019 12:29 PM EDT
2	Kenneth Mcgloin	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2		•	3/13/2019 11:54 AM EDT	

< 1-5 of 7 >

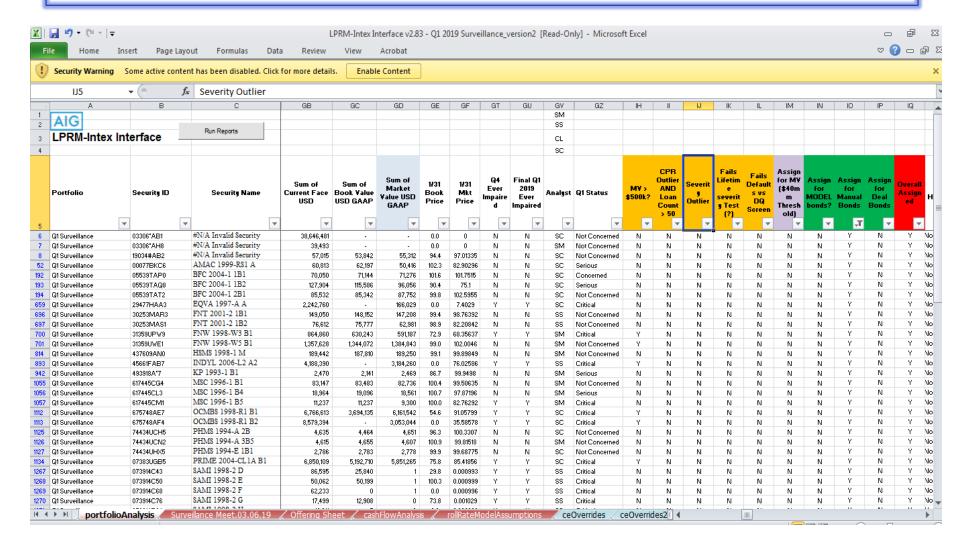
∨Approvals Completed/In-Progress

Approval Level	Approver Name	Approved Documents Name	Comments	Decision	Assigned On	Completed On
1	Ryan Fulmer	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	approved	V	3/13/2019 11:39 AM EDT	3/13/2019 11:54 AM EDT
1	Ryan Fulmer	LPRM-Intex Interface v2.83 - Q1 2019 Surveillance_version2	Approval time expired and was returned to initiator.	•	3/11/2019 6:01 PM EDT	

< 6-7 of 7 >



Approved US RMBS manual OTTI Analysis and assumptions for Q1 2019 - Extract





Walkthrough Sample – US RMBS OTTI - CA-1403571 and CA-1404325

Approval of RMBS OTTI memo for Q1 2019 - Extract

General Document Approval

General Information

Request ID: 10172

Subject : Q1 2019 Surveillance Memo Submission Date : 4/26/2019 3:22 PM EDT

Final Approval Due Date: 5/31/2019 11:30 PM EDT

Initiator:

Second Initiator: Sudhir Sharma

Documents Approved: Q1 2019 OTTI - US Non-Agency RMBS_version1

Initiator Comments

Comments	Comments made by	Comments made on
Attached please find the Q1 2019 Surveillance Memo		4/26/2019 3:35 PM
		EDT

Reviewers Comments

Reviewer level	Reviewer Name	Reviewed Documents Name	Comments	Decision	Assigned On	Completed On
1	Kenneth Mcgloin	Q1 2019 OTTI - US Non-Agency RMBS_version1	Review complete	Completed Review	4/26/2019 3:35 PM EDT	4/29/2019 2:25 PM EDT
1	David Naranjo Setien	Q1 2019 OTTI - US Non-Agency RMBS_version1	Reviewed.	Completed Review	4/26/2019 3:35 PM EDT	4/29/2019 3:58 PM EDT

Approvers Comments

Approval level	Approver Name	Approved Documents Name	Comments	Decision	Assigned On	Completed On
1	Ryan Fulmer	Q1 2019 OTTI - US Non-Agency RMBS_version1	approved	Approved	4/29/2019 3:58 PM EDT	4/30/2019 10:18 AM EDT
2	Geoffrey Comell	Q1 2019 OTTI - US Non-Agency RMBS_version1	Approved	Approved	4/30/2019 10:18 AM EDT	4/30/2019 3:45 PM EDT
3	Andrew Payne	Q1 2019 OTTI - US Non-Agency RMBS_version1	Approved.	Approved	4/30/2019 3:45 PM EDT	5/1/2019 12:14 PM EDT



Q1 2019 - RMBS OTTI final memo - Extract



Memo

Geoff Cornell, Ryan Fulmer, Andrew Payne, Ken McGloin, David Naranjo

CC: Sudhir Sharma FROM: Stella Magklivera DATE: April 26th, 2019

XE: Q1 2019 US Non-Agency RMBS Surveillance and OTTI Process

In Q1 2019, we used LPRM version 5.2 as approved by IVFA.

 We removed existing CRR, CDR and severity multiples and re-applied them where appropriate. A CRR multiple was not applied to pools with less than 50 loans.

 We assigned for Analyst review all bonds with a market value greater than or equal to \$40mm vs \$45mm in Q4.

Surveillance of the US RMBS portfolio this quarter was performed primarily with the Loan Performance RiskModel (LPRM). LPRM is described in the document "Loan Performance Risk Model Assessment.doc" dated June 15th 2010. The version of LPRM used this quarter was LPRM 5.2.

Although LPRM is used to analyze approximately 99% of all assets in the US non-agency RMBS portfolio, its coverage of the US RMBS market is incomplete. In particular, LPRM does not model certain collateral types (e.g. HELOCs). Some securities utilize LPRM to run the underlying assets but analysis requires some adjustments (e.g. re-REMICs). Others cannot be run in LPRM at all and are analyzed using historical performance trends as a guide or, in the absence of such data, go through a purely manual review by an analyst. AIG Investments' non-agency exposure by the relevant modeling tool is broken out in the table below. The breakdown of the portfolio by collateral type and vintage is shown in Appendix B. Further, Appendix C breaks out portfolio purchases in Q1 2019, and Appendix D shows estimated OTTI for the quarter¹ as well as the percentage of the portfolio we took as OTTI per Quarter. Note that Appendix B represents the universe covered by the surveillance process.

Tools Used for Analysis	# of Cusips	1/31/2019 Par Value (\$bn)	1/31/2019 Book Value (\$bn)
Loan Performance RiskModel	1524	\$22.95	\$15.44 (99.6%)
Fully Automatic	1520	\$22.84	\$15.43
Semi-Automatic*	4	\$0.01	\$0.01
Single Family Rental	5	\$0.10	\$0.10
Historical Performance Data	34	\$0.09	\$0.06 (0.4%)
Manual**	27	\$0.06	\$0.01 (0.04%)
Total	1590	\$23.10	\$15.6 (100.0%)

* Collateral performance vectors of underlying collateral are run through LPRM. However, running these bonds in intex requires manual adjustments

because they are typically a re-REMIC or were wrapped post issuance.

"Do not run through LPRM or the historical performance approach and require manual analysis.

Systems and Data Sources

Collateral information to model transactions is pulled from either the Loan Performance database or Intex. In the case of LPRM, the collateral data is granular by loan and includes characteristics such as FICO, LTV, documentation, occupancy status, etc. In addition, LPRM uses interest rates from Intex, and home price forecasts that AIG Global Economics creates and ERM approves as inputs. In contrast, bonds that do not run through LPRM rely on historical aggregate pool level data, such as CPR, CDR and the percentage of the pool that is seriously delinquent.

Based on these inputs, both approaches produce monthly projections of voluntary prepayments (CRR), defaults (CDR), loss severity and delinquencies. These vectors are applied to each security using Intex, which then produces bond-level principal and interest cashflows. A spreadsheet macro written in Visual Basic has been developed to substantially automate this process.

Modeling Assumptions

Note: For modeling purposes, collateral data from LPRM was as of 1/31/2019. The forward interest rate curves used in Intex were as of 02/28/2019. Intex deals were updated as of the 02/25/2019 remittance (when available).

The major inputs to LPRM are interest rates and home price projections.

Interest rates used in both LPRM and the historical data approach are based on the Intex forward curve. For indices that do not have a maturity-derived forward curve – such as the 30-year mortgage rate – we generate forward curves based on the current spread of the index to Treasuries or libor.

The home price projections used in LPRM are the Baseline scenario produced by the AIG Global Economics (AGE) team, which are vetted and approved by Enterprise Risk Management (ERM).

AGE provides home price projections at the CBSA level based on the CoreLogic HPI index. AGE's projections aggregated up to the national level, as well as for a few large CBSAs, are shown below. Prices in the chart are normalized to 1 as of December 2018, which was the latest update of the CoreLogic index when surveillance was performed. It is important to note that individual CBSA projections may differ significantly from national level projections.



Walkthrough Sample – EITF 99-20- CA-1403572

Approval of EITF 99-20 Analysis and email to Investment Accounting communicating the deliverables of Q1 2019 – GAAP & STAT

From: "Magklivera, Stella" < Stella. Magklivera@aig.com>

Date: March 18, 2019 at 1:15:35 PM EDT
To: "Kang, Samuel" <Samuel.Kang@aig.com>

Cc: "Sharma, Sudhir" < Sudhir.Sharma@aig.com>

Subject: Q1 2019 GAAP & STAT EITF 9920

Sam,

The Q1 2019 GAAP & STAT EITF 9920 files are posted on Sharepoint. Please, let me know if you have any questions. Thank you,

Stella

- . GAAP EITF 9920-Book Pxs for NonImpaired NonAgy RMBS bonds-Q1 2019 For IA
- STAT EITF 9920-Book Pxs for NonImpaired NonAgy RMBS bonds-Q1 2019 For IA

From: Fulmer, Ryan

Sent: Monday, March 18, 2019 11:59 AM

To: Magklivera, Stella < Stella. Magklivera@aig.com>

Cc: Sharma, Sudhir < Sudhir.Sharma@aig.com>

Subject: RE: GAAP & STAT EITF 9920 Q1 2019

approved

From: Magklivera, Stella

Sent: Monday, March 18, 2019 11:30 AM

To: Fulmer, Ryan < Ryan.Fulmer@aig.com>

Cc: Sharma, Sudhir < Sudhir.Sharma@aig.com>

Subject: GAAP & STAT EITF 9920 Q1 2019

Ryan,

Attached please find the GAAP and STAT EITF 9920 Q1 2019 files. Please, let us know if you approve after our discussions with Investment Accounting. Thank you,

Stella



Walkthrough Sample – EITF 99-20 - CA-1403572

Example of Investment Accounting Template Q1 2019 – EITF 99-20 GAAP - Extract

Ī	A2	▼ (a)	& Portfolio								
		A	В	С	D	E	F	G	Н	1	J
ľ						Last Quarter	Current Quarter				
L						Assumptions	Assumptions		Purchase Px - IDB		
Γ						Price-Q4 2018	Price-Q1 2019		_	_	
Ŀ	Portfolio	•	Security ID	Security Name	Run Mo	Assumptions *	Assumptions *	1Q 2018 Ever O	Comment	IA Discount Ra	IsEITF 99-20
	NON SOP_Domest	ic GAAP-Control 9	000780ND4	AMAC 2003-11 B1	MODEL	76.63	76.83	N		12.28	Yes
ı	NON SOP_Domest	ic GAAP-Control 10	000780PA8	AMAC 2003-13 A4	MODEL	98.63	98.68	N		5.82	Yes
ı	NON SOP_Domest	ic GAAP-Control 346	004375BZ3	ACCR 2004-3 1A5	MODEL	85.37	85.51	N		10.49	Yes
ı	NON SOP_Domest	ic GAAP-Control 347	004375BZ3	ACCR 2004-3 1A5	MODEL	99.23	99.23	N		5.10	Yes
ı	NON SOP_Domest	ic GAAP-Control 398	00441YAA0	ACE 2006-OP2 A1	MODEL	88.12	87.05	N		5.70	Yes
ı	NON SOP_Domest	ic GAAP-Control 399	00441YAA0	ACE 2006-OP2 A1	MODEL	88.12	87.05	N		5.70	Yes
ı	NON SOP_Domest	ic GAAP-Control 400	00441YAA0	ACE 2006-OP2 A1	MODEL	88.08	87.02	N		5.71	Yes
ı	NON SOP_Domest	ic GAAP-Control 401	00441YAA0	ACE 2006-OP2 A1	MODEL	88.08	87.02	N		5.71	Yes
	NON SOP_Domest	ic GAAP-Control 402	00441YAA0	ACE 2006-OP2 A1	MODEL	88.08	87.02	N		5.71	Yes
	NON SOP_Domest	ic GAAP-Control 406	004421YR8	ACE 2006-HE2 A1	MODEL	88.18	87.14	N		5.82	Yes
	NON SOP_Domest	ic GAAP-Control 407	004421YR8	ACE 2006-HE2 A1	MODEL	88.16	87.13	N		5.82	Yes
	NON SOP Domest	ic GAAP-Control 408	004421YR8	ACE 2006-HE2 A1	MODEL	88.16	87.13	N		5.82	Yes
	NON SOP Domest	ic GAAP-Control 409	004421YR8	ACE 2006-HE2 A1	MODEL	88.16	87.13	N		5.82	Yes
	NON SOP Domest	ic GAAP-Control 410	004421YR8	ACE 2006-HE2 A1	MODEL	88.15	87.11	N		5.83	Yes
	_	ic GAAP-Control 411	004421YR8	ACE 2006-HE2 A1	MODEL	88.15	87.11	N		5.83	Yes
	_	ic GAAP-Control 412	004421YR8	ACE 2006-HE2 A1	MODEL	88.15	87.11	N		5.83	Yes
	_	ic GAAP-Control 413	004421YR8	ACE 2006-HE2 A1	MODEL	88.15	87.11	N		5.83	Yes
	_	ic GAAP-Control 414	004421YR8	ACE 2006-HE2 A1	MODEL	88.15	87.11	N		5.83	Yes
	_	ic GAAP-Control 481	007036FT8	ARMT 2005-1 4A1	MODEL	98.90	98.19	N		4.86	Yes
		ic GAAP-Control 482	007036FT8	ARMT 2005-1 4A1	MODEL	98.90	98.20	N		4.86	Yes
		ic GAAP-Control 483	007036HY5	ARMT 2005-3 5A1	MODEL	92.74	92.15	N		6.38	Yes
	_	ic GAAP-Control 484	007036HY5	ARMT 2005-3 5A1	MODEL	92.74	92.15	N		6.38	Yes
	_	ic GAAP-Control 485	007036HY5	ARMT 2005-3 5A1	MODEL	92.70	92.11	N		6.39	Yes
	_	ic GAAP-Control 494	007036QV1	ARMT 2005-8 7A32	MODEL	77.51	78.25	N		15.16	Yes
	_	ic GAAP-Control 495	007036QV1	ARMT 2005-8 7A32	MODEL	77.42	78.16	N		15.22	Yes
	_	ic GAAP-Control 523	00764MHC4	AABST 2005-5 1A4	MODEL	93.01	92.84	N		5.95	Yes
		ic GAAP-Control 524	00764MHC4	AABST 2005-5 1A4	MODEL	93.01	92.84	N		5.95	Yes
		ic GAAP-Control 809	00764NIFIC4	CWALT 2007-OH2 A1A		88.22	87.04	N		5.83	Yes
	_	ic GAAP-Control 810	02151RAA1	CWALT 2007-OH2 A1A		89.74	88.53	N		5.45	Yes



Walkthrough Sample – EITF 99-20 - CA-1403572

Example of Investment Accounting Template Q1 2019 – EITF 99-20 STAT - Extract

🔛 🛂 ▼ (24 ▼	Insert Page La	avout Form	STAT ulas Data Review	View	Acrobat					
					ACTODAL					
A3	→ (e)	<i>f</i> _x Non-SOF	Domestic STAT-Contro	ol 347						
4	A	В	С	D	E	F	G	Н	I I	J
					Last Quarter	Current Quarter				
					Assumptions	Assumptions		Purchase Px - IDB		
Portfolio	~	Security ID	Security Name	Run Mo	Price-Q4 2018 Assumptions	Price-Q1 2019 Assumptions	1Q 2019 Ever	▼ Comment	▼ IA Discount Ra ▼	IsEITF 99-2
	stic STAT-Control 347		#N/A Invalid Security	MODEL	85.76	86.08	N N	Comment	10.2	Yes
	stic STAT-Control 402		ACE 2006-OP2 A1	MODEL	89.32	88.37	N		5.4	Yes
	stic STAT-Control 485		ARMT 2005-3 5A1	MODEL	91.85	91.08	N		6.7	Yes
	stic STAT-Control 812		CWALT 2007-OH2 A1A	MODEL	86.89	85.87	N		6.1	Yes
	stic STAT-Control 1477		AHM 2005-1 6A	MODEL	102.88	102.55	N		3.2	Yes
	stic STAT-Control 1583		AMSI 2003-10I AF5	MODEL	103.50	103.96	N		4.8	Yes
	stic STAT-Control 1976		ARSI 2005-W5 A2C	MODEL	93.24	92.07	N		4.3	Yes
	stic STAT-Control 1980		ARSI 2005-W5 A2D	MODEL	91.76	91.02	N		4.6	Yes
	stic STAT-Control 2626		BNCMT 2007-2 A3	MODEL	94.43	93.48	N		4.3	Yes
	stic STAT-Control 2821		BOAMS 2004-I 2A2	MODEL	99.82	98.96	N		5.0	Yes
	stic STAT-Control 2824		BOAMS 2004-J 2A1	MODEL	99.16	98.46	N		5.1	Yes
Non-SOP Domes	stic STAT-Control 2910	05952DAB4	BAFC 2007-A 2A1	MODEL	97.01	95.66	N		3.9	Yes
Non-SOP Domes	stic STAT-Control 2912	05952DAB4	BAFC 2007-A 2A1	MODEL	97.09	95.74	N		3.9	Yes
	stic STAT-Control 3929		CITM 2007-1 1M1	MODEL	99.37	97.76	N		4.5	Yes
Non-SOP Domes	stic STAT-Control 3930	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3931	12559QAF9	CITM 2007-1 1M1	MODEL	99.37	97.76	N		4.5	Yes
Non-SOP Domes	stic STAT-Control 3932	12559QAF9	CITM 2007-1 1M1	MODEL	98.84	97.25	N		4.6	Yes
Non-SOP Domes	stic STAT-Control 3933	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3934	12559QAF9	CITM 2007-1 1M1	MODEL	97.15	95.63	N		4.8	Yes
Non-SOP Domes	stic STAT-Control 3935	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3936	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3937	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3938	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3939	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3940	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3941	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 3942	12559QAF9	CITM 2007-1 1M1	MODEL	89.09	87.86	N		6.0	Yes
Non-SOP Domes	stic STAT-Control 4039	12594XAX2	CSMC 2017-HL1 B2	MODEL	97.50	97.56	N		4.0	Yes
Non-SOP Domes	stic STAT-Control 4040	12594XAX2	CSMC 2017-HL1 B2	MODEL	97.50	97.56	N		4.0	Yes
Non-SOP Domes	stic STAT-Control 4041	12594XAY0	CSMC 2017-HL1 B3	MODEL	92.97	93.10	N		4.6	Yes
Non-SOP Domes	stic STAT-Control 4042	12594XAY0	CSMC 2017-HL1 B3	MODEL	92.97	93.10	N		4.6	Yes
	t Table Pivot R		CCMC 2017 III 1 D4	MODEL	75.01	74.00	N.			V



Walkthrough Sample – US CMBS - CA-1403572 and CA-3806719

Approval of CMBS OTTI Analysis and Cashflows for non-impaired securities and email to Investment Accounting communicating the deliverables of Q1 2019 GAAP

From:	■ Samaan, Jayson Sent: Tue 3/12/2019 10):20 AM
To:	▼Yu, Connie; McIntyre, Steve@InvestACCT; Kang, Samuel	
Cc:	💹 Mezrin, Vadim; 🖫 Petitto, James M; 🖫 Finch, Robert Lee; 🖟 Kogan, David S; 🖫 Romano, Joseph; 🕮 Hall, Tricia; 🕮 Horsford, Colin; 🕮 Chung, Albert; 🕮 Liu, Cynthia	
Subject:	FW: OTTI Structured 1Q19 (GAAP) - (CMBS)	
credit p [1Q201	ve reviewed the [GAAP] [CMBS] securities identified by Investment Accounting for possible impairment and highlighted the appropriate securities as being credit-impaired in accordance with asset class specific policies and procedures which are approved by AIG Credit Risk Management. Please find our 1Q 2019 credit impairment recommendations along with related recovery values and cash flows in the file(s) titled 19_OTTIEVal02062019_GAAP - FINAL] with a date/time stamp of	□
[3/12/2	2019 6:19 AM]	
at the f	following link:	
GAAP		
From: Re	omano, Joseph	Ø⊒.
	Ionday, March 11, 2019 8:45 PM	_
	iaan, Jayson <jayson.samaan@aig.com></jayson.samaan@aig.com>	
	Tricia <tricia.hall@aig.com>; Liu, Cynthia <cynthia.liu@aig.com></cynthia.liu@aig.com></tricia.hall@aig.com>	
	: Re: OTTI Structured 1Q19 (GAAP) - (CMBS)	
,		
Approve	ed.	
On Mar	11, 2019, at 6:54 PM, Samaan, Jayson < <u>Jayson.Samaan@aig.com</u> > wrote:	
	Joe,	
'	Joe,	
	We have reviewed the [GAAP] [CMBS] securities identified by Investment Accounting for possible impairment and highlighted the appropriate securities as being credit-impaired in accordance with asset class specific credit policies and procedures which are approved by AIG Credit Risk Management. Please find our 1Q 2019 credit impairment recommendations along with related recovery values and cash flows in the file(s) titled [1Q2019_OTTIEVal02062019_GAAP - FINAL] with a date/time stamp of	
	[3/11/2019 6:52 PM]	=
	at the following link:	
	<u>GAAP</u>	

Walkthrough Sample – US CMBS - CA-1403572 and CA-3806719

Approval of CMBS OTTI Analysis and Cashflows for non-impaired securities and email to Investment Accounting communicating the deliverables of Q1 2019 STAT

From:	☐ Samaan, Jayson	Sent: Tue 3/	/12/2019 10:20 AM
To:	■ Silva, Rosa@InvestAcct; □ Yu, Connie; □ McIntyre, Steve@InvestACCT; □ Kang, Samuel		
Cc:	🗏 Fan, Hui; 🖳 Mezrin, Vadim; 🖟 Petitto, James M; 🖟 Finch, Robert Lee; 🖟 Kogan, David S; 🖫 Romano, Joseph; 🦳 Hall, Tricia; 🖫 Horsford, Colin; 🖳 Chung, Albert; 🖳 Liu, Cynthia		
Subject:	FW: OTTI Structured 1Q19 (STAT) - (CMBS)		
policie [1Q20	ave reviewed the [STAT] [CMBS] securities identified by Investment Accounting for possible impairment and highlighted the appropriate securities as being credit-impaired in accordance with assess and procedures which are approved by AIG Credit Risk Management. Please find our 1Q 2019 credit impairment recommendations along with related recovery values and cash flows in the fit 19_OTTIEVal02062019_STAT - FINAL] with a date/time stamp of		ecific credit
[3/11/	2013 S.40 FWI]		
at the	following link:		
STAT			
From:	Romano, Joseph	◆Next	 ∆Last
Sent: N	Monday, March 11, 2019 8:45 PM		_
	maan, Jayson < Jayson.Samaan@aig.com>		
	I, Tricia < Tricia. Hall@aig.com>; Liu, Cynthia < Cynthia.Liu@aig.com>		
	t: Re: OTTI Structured 1Q19 (STAT) - (CMBS)		
Jubjec	ic. Net. OTH Structured 1Q13 (STAT) - (CMIDS)		
Approv	ved.		
On Ma	r 11, 2019, at 6:53 PM, Samaan, Jayson < <u>Jayson.Samaan@aig.com</u> > wrote:		
	Joe,		
	We have reviewed the [STAT] [CMBS] securities identified by Investment Accounting for possible impairment and highlighted the appropriate securities as being credit-impaired in accordance class specific credit policies and procedures which are approved by AlG Credit Risk Management. Please find our 1Q 2019 credit impairment recommendations along with related recovery v flows in the file(s) titled [1Q2019_OTTIEVal02062019_STAT - FINAL] with a date/time stamp of		ash
	[3/11/2019 3:48 PM]		
	at the following link:		
	<u>STAT</u>		

Example of Investment Accounting Template Q1 2019 – CMBS US GAAP – Extract

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	29196	13191662	50177AAV	LB COMME	RCIAL CO	NDUIT MO	RTGAGES	Un-Assig	0.9823	6746885.513		1 208652	6955537.835	1.0309	5.0401		CMBS NO	CMBS C0	CMBS C	CMBS N	FIXED IN	>100%		Un-Assiç	LB Comr	т Joseph F	AFS
	29197	13191663	50177AAV	LB COMME	RCIAL CO	NDUIT MO	RTGAGES	Un-Assig	0.9823	3618663.552		1 111910	3730573.344	1.0309	5.0401		CMBS NO	CMBS C0	CMBS C	(CMBS N	FIXED IN	>100%		Un-Assig	LB Comr	т Joseph F	AFS
	29198	13191664	50177AAV	LB COMME	RCIAL CO	NDUIT MO	RTGAGES	Un-Assig	0.9823	3313794.458		1 102481	3416275.952	1.0309	5.0401		CMBS NO	CMBS C0	CMBS C	CMBS N	FIXED IN	>100%		Un-Assig	LB Comr	т Joseph Р	AFS
	29199	13191665	50177AAV	LB COMME	RCIAL CO	NDUIT MO	RTGAGES	Un-Assig	0.9823	2889628.767		1 89364	2978992.63	1.0309	5.0401		CMBS NO	CMBS C0	CMBSIC	CMBS N	FIXED IN	>100%		Un-Assiç	LB Comr	т Joseph F	AFS
Ī	28202	13189263	059511AQ8	BANC OF A	MERICA C	OMMERCI	AL MOR S	Un-Assig	0	0) 0	0	0	16.919		CMBS NO	CMBS C0	CMBS C	CMBS N	FIXED IN	>100%		Un-Assiç	Banc of	/ Joseph P	AFS
	16307	13166246	617451CW	MORGANS	TANLEY 0	CAPITAL I	TRUST SE	Un-Assig	0.7151	8465029.432		1 2E+06	10232716.44	1.2088	16.503		CMBS NO	CMBS C0	CMBS C	CMBS N	FIXED IN	>60%,<	=75%	Un-Assig	Morgan:	S Joseph F	AFS
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ľ	181	13130490	00183HAE	AVENUE OF	AMERICA	AS SER 20	15-1177CL	Un-Assig	gned								CMBS NO	CMBSILA	CMBS S	CMBS N	FIXED IN	>95%,<	=100%	Un-Assig	AOA Mo	r Joseph F	AFS
ĺ	182	13130491	00183HAE	AVENUE OF	AMERICA	AS SER 20	15-1177CL	Un-Assig	gned								CMBS NO	CMBSILA	CMBS S	CMBS N	FIXED IN	>95%,<	=100%	Un-Assig	AOA Mo	r Joseph F	AFS
ı	183	13130492	00183HAG	AVENUE OF	AMERICA	AS SER 20	15-1177CL	Un-Assig	gned								CMBS NO	CMBSILA	CMBS S	CMBS N	FIXED IN	>95%,<	=100%			r Joseph F	
	184	13130493	00183HAG	AVENUE OF	AMERICA	AS SER 20	15-1177CL	Un-Assig	gned								CMBS NO	CMBSILA	CMBS S	CMBS N	FIXED IN	>95%,<	=100%	Un-Assig	AOA Mo	r Joseph F	AFS
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Example of Investment Accounting Template Q1 2019 – CMBS US STAT – Extract

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5	17796	13169260	682439AH	3 1166 AVE		128871	AIG-AGI-	AIG-AGI-	191012975	5000000	5000000	1535882	5300234	3764352	345 094	Asset M	anagemer	t Group-	Structured			Un-Assig	0.2003	4999338	n ggr
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	181	13130490	00183HAE	AVENUE (((129196	AIG-LEX-	AIG-LEX-	182726180	5000000	5000000	5056764	4926429	-130335	97.4226	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	183	13130492	00183HAG	6 AVENUE (((129001	AIG-AH P	AIG-AH P	218556115	5175000	5175000	5144699	5067258	-77441.4	98.4947	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2378	13133998	05523GAC	BANC OF	(128871	AIG-AGL-	AIG-AGL-	218840984	5E+07	5E+07	2701870	2374485	-327385	87.883	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2379	13133999	05523GAC	BANC OF	(128871	AIG-AGL-	AIG-AGL-	218840996	5E+07	5E+07	2701870	2374485	-327385	87.883	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2380	13134000	05523GAC	BANC OF	(128682	AIG-AGL-	AIG-AGL-	218840859	1.7E+07	1.7E+07	901884	792603	-109281	87.883	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2381	13134001	05523GAC	BANC OF	(129196	AIG-LEX-	AIG-LEX-	217984342	2.5E+07	2.5E+07	1349726	1187243	-162483	87.9618	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2382	13134002	05523GAC	BANC OF	(129196	AIG-LEX-	AIG-LEX-1	217984417	2.5E+07	2.5E+07	1350266	1187717	-162548	87.9618	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2383	13134003	05523GAE	BANC OF	(129196	AIG-LEX-	AIG-LEX-1	217984425	2.5E+07	2.5E+07	505906	420917	-84989.4	83.2006	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2384	13134004	05523GAE	BANC OF	(129556	AIG-USL-	AIG-USL-	218555853	5.9E+07	5.9E+07	1180433	982139	-198294	83.2016	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2409	13134046	05524UAA	7 BANC OF	(129137	AIG-DSAI	AIG-FRCL	191378850	4425000	4425000	4550462	4452086	-98375.2	97.8381	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
			05524UAA		(217983969	1E+07	1E+07			-59898.7			anagemer					Un-Assig			
	2413	13134050	05524VAE7	BANC OF	(129196	AIG-LEX-	AIG-LEX-	217984434	4225000	4225000	4434241	4321287	-112954			anagemer					Un-Assig	ned		
			05524VAG		(217984443								anagemer					Un-Assig			
	2419	13134056	05525BAG	BANC OF	(213218874				2475385	-26216.5	98.952	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2422	13134059	05525MAA	4 BANC OF	(128871	AIG-AGL-	AIG-AGL-	218840843	5250000	5250000	5540626	5276399	-264227			anagemer					Un-Assig	ned		
	2424	13134061	05525MAA	4 BANC OF	(128682	AIG-AGL-	AIG-AGL-	215323116	2.2E+07	2.2E+07	2.3E+07	2.2E+07	-450053	98.034	Asset M	anagemer	t Group-	Structured			Un-Assig			
			05525MAA		(129669	AIG-VALI	AIG-VALI	215474989	2187500	2187500	2295420	2198500	-96920.6	95.7777	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		
	2/21	13134068	05525MAE	6 BANC OF		128682	AIG-AGI-	AIG-AGI-	224517486	1 5F±07	1 5F±07	1 5F±07	1 5F±07	-656457	05 673	Asset M	anagemer	t Group-	Structured			Un-Assig	ned		

Walkthrough Sample – US CMBS Non-impaired Cashflows review - CA-3806719

Example of Q1'2019 cashflow for non-impaired securities submitted to IA – Extract

Continue Cusing Deal Class Face Disc NPV: Delin Reccas % (St. 6)	ntrol Key: sip: al Name: ass: ce: cc: ccount Rate: V:	B Management 11440 361849R46 GMACC 2006-C1 AJ 4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A) 4,232,702	Undiscounted Sum of Principal as a % of Par (Current Par) 98.87%	D	Undiscounte d Sum of Cash Flow (C=A+B) 4,498,571	Undiscounted Sum of Cash Flow as % of Par (Curr Par) 105.08%	G	Н	I	1	К	L	
Con' Cusi Deal Class Face Disc NPV: Delin Reccas % (St	IG Asset Introl Key: sip: al Name: ass: ce: scount Rate: V: liverables covery Value % of Current Par Structured) 74.69%	11440 361849R46 GMACC 2006-C1 AJ 4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A)	Undiscounted Sum of Principal as a % of Par (Current Par)	Undiscounte d Sum of Interest Received (B)	Undiscounte d Sum of Cash Flow (C=A+B)	Undiscounted Sum of Cash Flow as % of Par (Curr Par)	G	Н	ı	J	К	L	
Con: Cusi Deal Class Face Disc NPV: Deliv Recc as % (St	ntrol Key: sip: al Name: sss: ce: scount Rate: V: liverables covery Value % of Current Par Structured) 74.69%	11440 361849R46 GMACC 2006-C1 AJ 4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A)	Undiscounted Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
Con' Cusi Deal Class Face Disc NPV: Delin Reccas % (St	ntrol Key: sip: al Name: sss: ce: scount Rate: V: liverables covery Value % of Current Par Structured) 74.69%	11440 361849R46 GMACC 2006-C1 AJ 4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A)	Undiscounted Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
Consumate Customer Cu	sip: al Name: ass: ce: scount Rate: V: liverables covery Value % of Current Par Structured) 74.69%	361849R46 GMACC 2006-C1 AJ 4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A)	Undiscounted Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
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Face Disc NPV: Delin Recc as % (St	ce: scount Rate: V: liverables covery Value % of Current Par Structured) 74.69%	4,281,220 33.80 3,197,853 Undiscounted Sum of Principal Received (A)	Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
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Reccas % (St	covery Value % of Current Par Structured) 74.69%	Undiscounted Sum of Principal Received (A)	Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
Reccas %	covery Value % of Current Par Structured) 74.69%	Sum of Principal Received (A)	Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
as % (St	% of Current Par Structured) 74.69%	Sum of Principal Received (A)	Sum of Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
as % (St	% of Current Par Structured) 74.69%	Sum of Principal Received (A)	Principal as a % of Par (Current Par)	d Sum of Interest Received (B)	d Sum of Cash Flow (C=A+B)	Sum of Cash Flow as % of Par (Curr Par)							
(St	Par Structured) 74.69%	Principal Received (A)	of Par (Current Par)	Interest Received (B)	Cash Flow (C=A+B)	Flow as % of Par (Curr Par)							
1	Structured) 74.69%	Received (A)	Par)	Received (B)	(C=A+B)	Par (Curr Par)							
1	74.69%												
5 5 7 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		4,232,702	98.87%	265,869	4,498,5/1	105.08%							
5	Dawie d#												-
7	Dania da												
3 3 3 1 2 3 3 4 5		Date	Enhancement	Coupon	Interest	Penalty	Principal	Cashflow	Balance	LongAmi	Locum IntChortfall I	nt Not Paid Due to C	an
2 3 4 5 5 7	1	4/10/2019	0.00	5.35	19,105	0	1,832	20,937	4,279,539	-151	0	0	ap
2 3 4 5 5 7	2	5/10/2019	0.00	5.35	19,076	0	1,924	21,000	4,277,765	-150	0	0	
2 3 4 5 5	3	6/10/2019	0.00	5.35	19,068	0	1,874	20,942	4,276,047	-155	0	0	
2 3 4 5 5 5 7	4	7/10/2019	0.00	5.35	19,060	0	1,944	21,004	4,274,253	-150	0	0	
3 1 3 3	5	8/10/2019	0.00	5.35	19,052	0	1,894	20,946	4,272,515	-156	0	0	
i i	6	9/10/2019	0.00	5.35	19,045	0	1,904	20,949	4,270,767	-156	0	0	
5	7	10/10/2019	0.00	5.35	19,037	0	1,974	21,010	4,268,944	-151	0	0	
5	8	11/10/2019	0.00	5.35	19,029	0	1,925	20,953	4,267,176	-157	0	0	
	9	12/10/2019	0.00	5.35	19,021	0	2,036	21,057	4,265,291	-151	0	0	
	10	1/10/2020	0.00	5.35	19,013	0	1,988	21,001	4,263,459	-157	0	0	
	11	2/10/2020	0.00	5.35	19,004	0	2,001	21,005	4,261,618	-159	0	0	
)	12	3/10/2020	0.00	5.35	18,996	0	2,125	21,121	4,259,637	-144	0	0	
)	13	4/10/2020	0.00	5.35	18,987	0	3,737,106	3,756,093	472,320	50,212	0	0	
	14	5/10/2020	0.00	5.35	2,105	0	1,923	4,028	470,382	15	0	0	
2	15	6/10/2020	0.00	5.35	2,097	0	1,870	3,967	468,497	15	0	0	
3	16	7/10/2020	0.00	5.35	2,088	0	1,945	4,033	466,537	15	0	0	
1	17	8/10/2020	0.00	5.35	2,080	0	1,892	3,972	464,617	28	0	0	
5	18	9/10/2020	0.00	5.35	2,071	0	401,012	403,083	63,551	54	0	0	
5		10/10/2020	0.00	5.35	283	0	963	1,246	62,587	1	0	0	
	19		0.00	5.35	279	0	970	1,249	61,617	1	0	0	
3		11/10/2020 12/10/2020		5.35	275 270	0	976 983	1,251 1,253	60,640 59,656	1	0	0	

Appian Approval of CMBS OTTI Memo - Extract

General Document Approval

General Information

Request ID: 9987

Subject: Process Memo: US - Q1/2019 for CMBS Submission Date: 3/20/2019 4:08 PM EDT Final Approval Due Date: 4/30/2019 8:00 PM EDT

Initiator: Jayson Samaan Second Initiator: Cynthia Liu

Document: Approved : Exhibit A - OTTI Q1 2019 Final_version2; US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2

Initiator Comments

Comments	Comments made by	Comments made on
Process Memo: US - Q1/2019 for CMBS	Jayson Samaan	3/20/2019 4:23 PM EDT
Process Memo: US - Q1/2019 for CMBS (modified to reflect that the AGE Scenario has been used since 2017Q4 OTT)	Jayson Samaan	3/26/2019 1:10 PM EDT

Reviewers Comments

Reviewer level	Reviewer Name	Reviewed Documents Name	Comments	Decision	Assigned On	Completed On
1	Joseph Romano	Exhibit A - OTTI Q1 2019 Final version1, US CMBS OTTI Process Memo Q1 2019 FINAL_version1	approved	Completed Review	3/20/2019 4:23 PM EDT	3/20/2019 4:25 PM EDT
1	Joseph Romano	Exhibit A - OTTI Q1 2019 Final_version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2		Completed Review	3/26/2019 1:11 PM EDT	3/26/2019 1:20 PM EDT
2	David Naranjo Setien	Emhibit A - OTTI Q1 2019 Final_version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	Reviewed.	Completed Review	3/26/2019 1:20 PM EDT	3/26/2019 3:41 PM EDT
2	Kenneth Megloin	Exhibit A - OTTI Q1 2019 Final_version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	Review complete	Completed Review	3/26/2019 1:20 PM EDT	3/27/2019 2:24 PM EDT

3	Andrew Payne	Exhibit A - OTTI Q1 2019 Final version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	Review complete.	Completed Review	3/27/2019 2:24 PM EDT	3/27/2019 4:02 PM EDT
2	David Naranjo Setien	Exhibit A - OTTI Q1 2019 Final version1, US CMBS OTTI Process Memo Q1 2019 FINAL version1	Request Recalled	Skipped	3/20/2019 4:25 PM EDT	
2	Kenneth Mcgloin	Exhibit A - OTTI Q1 2019 Final_version1, US CMBS OTTI Process Memo Q1 2019 FINAL_version1	Request Recalled	Skipped	3/20/2019 4:25 PM EDT	

Approvers Comments

Approval level	Approver Name	Approved Documents Name	Comments	Decision	Assigned On	Completed On
1	Tom Fewings	Exhibit A - OTTI Q1 2019 Final version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	200	Approved	3/27/2019 4:02 PM EDT	3/27/2019 6:01 PM EDT
1	Geoffrey Cornell	Exclusive A - OTTI Q1 2019 Final version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	approved	Approved	3/27/2019 4:02 PM EDT	3/28/2019 6:20 AM EDT
2	Kenneth Mcgloin	Examinist A - OTTI Q1 2019 Final_version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	Approved	Approved	3/28/2019 6:20 AM EDT	3/28/2019 8:32 AM EDT
2	David Naranjo Setien	Exclusive A - OTTI Q1 2019 Final version2, US CMBS OTTI Process Memo Q1 2019 FINAL V2_version2	Approved.	Approved	3/28/2019 6:20 AM EDT	4/1/2019 9:14 AM EDT
3	Andrew Payne	Evaluate A - OTTI Q1 2019 Final version2, US CMBS OTTI Process Memo Q1 2019 FDVAL V2_version2	Approved.	Approved	4/1/2019 9:14 AM EDT	4/11/2019 1:04 PM EDT



Q1 2019 - Approved CMBS OTTI memo - Extract



AIG Investments 80 Pine Street, 8th Floor New York, NY 10005

To: Geoffrey Cornell, Tom Fewlings, Joseph Romano, Ken McGloin, David Kogan, David

Naranjo

From: Tricia Hall

Date: March 26, 2019

RE: Q1 2019 US/Canadian CMBS Impairment Process

Summary of Major Changes to First Quarter 2019 impairment Process

No change in methodology.
 No change in scenario selection.

Table 1: CMBS Portfolio Summary (\$MM)

15.35.55 BV (SAAP)	Buy	Sell	OTH	BVAG*	(SAAP)	LBL190V (STAT)	LILIDAY
\$1,542	\$40	(\$82)	50	(\$208)	\$3,286	\$3,298	\$3,306
\$1,647	\$180	50	(90)	\$15	\$1,841	\$1,842	\$1,840
\$90	\$0	50	(\$40)	90	\$46	529	\$49
\$585	58	50	(90)	(5800)	\$506	\$506	\$51.5
\$3,979	58	(\$00)	50	(\$479)	\$8,798	\$3,787	\$3,789
\$4	\$0	50	50	90	54	\$1	54
					50	\$798	9821
\$6,804	\$230	(5000)	(96)	(\$464)	\$9,472	\$10,266	\$10,122
\$194	\$0	50	50	(\$4)	\$150	\$150	\$149
\$6,762	\$230	(\$1100)	(94)	(\$262)	\$9,622	\$10,415	\$10,472
	\$0,542 \$2,667 \$60 \$105 \$1,679 \$1 \$4,604	\$1,542 \$40 \$1,647 \$130 \$10 \$0 \$485 \$8 \$1,879 \$1 \$1 \$0 \$4,804 \$20 \$1,54 \$0	\$1,542 \$40 (\$92) \$1,647 \$580 \$0 \$00 \$0 \$0 \$1965 \$4 \$0 \$1,547 \$1 \$00 \$1 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00	\$1,542 \$40 (\$42) \$0 \$2,647 \$180 \$0 (\$6) \$10 \$0 \$0 (\$6) \$185 \$0 \$0 (\$6) \$186 \$8 \$0 (\$6) \$1,879 \$1 (\$101 \$0 \$1 \$0 \$0 \$0 \$4,804 \$200 (\$600) \$60 \$4,804 \$200 (\$600) \$60	\$1,542 \$40 \$(\$02) \$0 \$(\$00) \$25 \$0.500 \$0 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$	SALAN Sec	\$1,000 \$40 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$5

Note: Excludes Out of Scope positions: Agency CN/BS, Interest only tranches which are N/TN/L. Selkirk is out of scope for GAAP, but in scope for State

Description of Process for US CMBS Holdings (\$9,472 MM):

US CMBS holdings are analyzed using the Portfolio & Property Research, Inc. ("PPR") Compass model. PPR is one of the leading independent providers of commercial real estate research and analysis. The Compass model provides loan level losses, which are utilized to generate loss adjusted bond level cash flows via Trepp, an Internet-based third party analytical tool. AGE Baseline Scenario has been used starting from 2016Q4 OTTI. In addition, to gauge the reasonableness of Compass model losses, deal level loss estimates are benchmarked with at least three third-party loss providers where available. This benchmarking analysis is included in the Appendix: Benchmarking AIG Deal Level Loss Assessment to Dealer Estimates.

Selkirk Transaction (\$798 MM STAT):

The AIG-sponsored Selikirk transaction is out of scope on a GAAP basis, but is in scope on a STAT basis. These bonds are subject to the general process described above; however, overrides (if any) are developed in conjunction with the CML team's specific and general allowance modeling process.

Description of Process for Canadian Holdings (\$150 MM):

The AIG Canadian CMBS portfolio, transferred to the US CMBS team as of Q1 2014, is comprised of 12 transactions collateralized by approximately 425 loans and is predominantly rated AA and above. Average defeasance adjusted credit enhancement to the portfolio is 17.8%, compared with losses of 1.5% in the base case and 6.6% in the stress case; LCMs are 12.51x and 2.37x, respectively. Individual transaction-level LCMs are a minimum of 3.8x in the base case and range between 1.6x and 23.2x in the stress case. While the base case is used for OTTI, none of the Canadian holdings are expected to incur impairment in either scenario.

Given the relative size and senior positions of this portfolio (mainly AAA), these bonds pose minimal risk. In addition, the Canadian market has strict underwriting standards for commercial loans as well as a strong credit history. Since there are no external models available for commercial loans in Canada, we use a systematic approach to assess the portfolio for OTTI.

In our approach, the potential base loss of each loan is calculated as loan balance minus value; where loan balance is as of maturity (except for loans with DSCR<1.0x, the current loan balance is used) and value is from the most recent appraisal and adjusted downward by 100% of any DSCR decrease, when DSCR has declined since securitization. While there are no losses to date, an impairment would be taken where the sum of collateral loan values for a given deal are insufficient relative to credit enhancement of the bond we hold. Our conservative approach gives no credit to loan recourse structured in the majority of the Canadian loan collateral, where borrowers are more incentivized to resolve credit issues as reflected in the historical loss sevently rate less than 1%.

Description of Scenario Assumption and Model Selection

Scenario Assumption:

AGE Baseline scenario has been used since 2017Q4 OTTI, which has been approved by Enterprise Risk Management ("ERM").

Model Selection:

A new version of the model was provided by the vendor in June 2016. The new version of the model has been tested by the structured products modeling group and validated on December 15th, 2016.

Because the vendor calibrated the new version of credit model to their revised historic CRE market data, the current validated version is no longer compatible with the new CRE market forecasts from either the vendor or the internal AIG Global Economics (AGE) team. As a result, the new version had to be used for the current OTTI and the same would apply for all future runs.

From a risk mitigation perspective, the Analytic team will continue to perform key controls currently in place when running production processes, such as reviewing inputs and verifying reasonableness of results. For OTTI purpose, the CMBS team will confirm with investment analytics that the model has been validated.

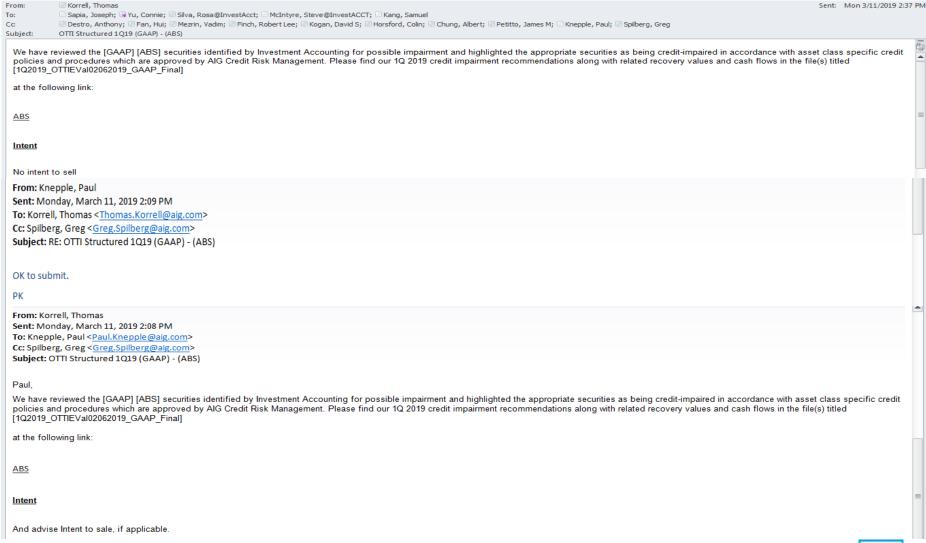
Maturity Gap:

In 2010, PPR developed a Maturity Gap feature in response to the upcoming maturity of five-year 2006-2007 vintage loans and the potential dearth of refinancing sources. While the concept of addressing maturity risk is valid, the original maturity gap feature overstated losses. Over the past two years, PPR has refined its model more in-line with AIG's view of maturity risk. As the Commercial Mortgage Loan (CML) group has been using the PPR Maturity Gap model for their Loan Loss Allowance process, and in order to be consistent within the firm, the CMBS Group implemented this feature as of September 30, 2015.

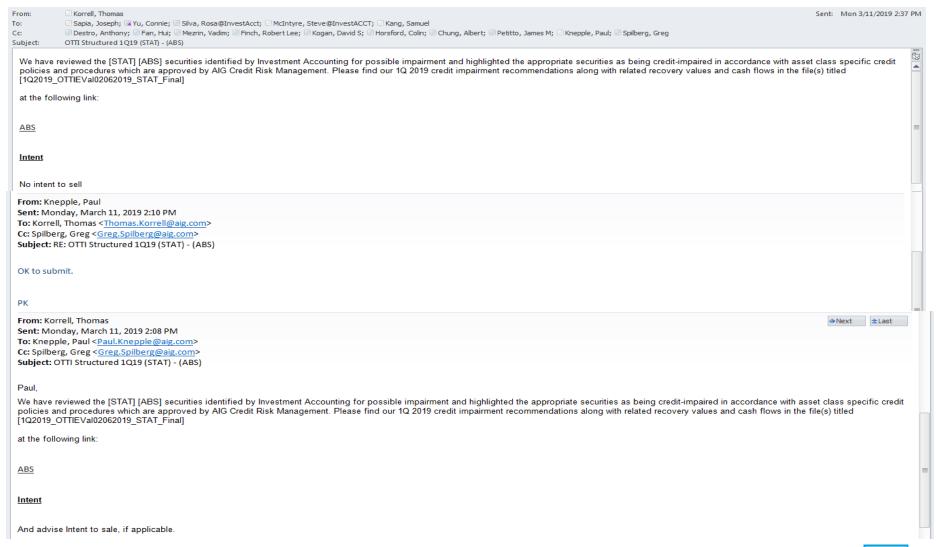


^{1.} Amortization and Paydowns

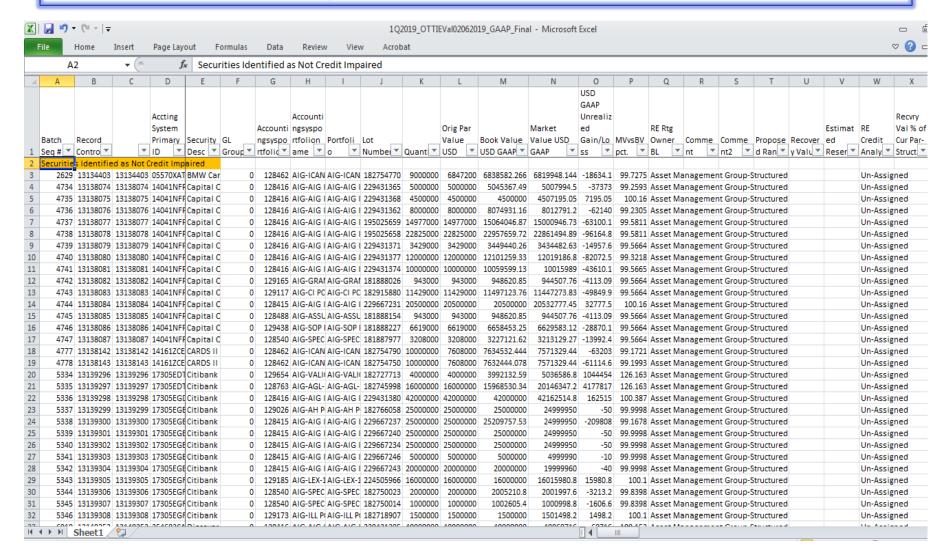
Approval for IA templates (GAAP) of Public ABS to submit OTTI Analysis to Investment Accounting - Extract



Approval for IA templates (STAT) of Public ABS to submit OTTI Analysis to Investment Accounting - Extract



Example of Investment Accounting Template Q1 2019 – Public ABS US GAAP – Extract





Example of Investment Accounting Template Q1 2019 – Public ABS US STAT – Extract

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1	17421	13168562	. 66704JBS	S NORTHST	л /	0 129185	5 AIG-LEX-	1 AIG-LEX-1	1 217983905	5378860	20000000	5438317	5308150	-130167	97.6065	Asset M	lanageme	ent Group-S	Structurer	d		Un-Assig	gned		
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Walkthrough Sample – US Public ABS Cashflow review - CA-3806719

Submission of cashflows for non-impaired Public ABS securities to Investment Accounting - Extract

From:	Korrell, Thomas			Sent: Tue	3/26/2019 11:30 AM
To:	Kang, Samuel				
Cc:	🖫 Yu, Connie; 🗌 Knep	pple, Paul Hidden on 01	-04-2019, 10:02:13; 🗏 Spilberg, Greg		
Subject:	1Q19 Cash Flows - No	on Credit Impaired Se	curities - Follow up		
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I need to	look into these furt	her, I'm not sure t	hey fall under US ABS (Paul Knepple)	1	
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166430A		ABS	Chesterfield Financial Holding SER 2014-1ACL A		
40053RA	A0	ABS	GRX 1504 A		
Sent: Mor To: Clemo Vance, Fre < <u>Stephen</u> < <u>Thomas.</u> Cc: Yu, Co	ederick@New York .DeTommaso@AIG Korrell@aig.com>; nnie <connie.yu@a< th=""><th>Clemons@aig.com <<u>Frederick.Vance</u> i.com>; Orlando, A Knepple, Paul <<u>Pa</u> aig.com></th><th><u>2@aig.com</u>>; Keothavong, Lena <<u>Lena.Keothavong@aig.con</u> .lexander J <<u>Alexander.Orlando@aig.com</u>>; Leventis, Christi</th><th>Geng@aig.com>; Roberts, Sam < Sam.Roberts@aig.com>; Keothavong, Lena < Lena.Keothavong@ ip>; Steele, Tim < Tim.Steele@aig.com>; Shikov, Milen < Milen.Shikov@aig.com>; DeTommaso, Ste ne < Christine.Leventis@aig.com>; Brogdon, Christopher < Christopher.Brogdon@aig.com>; Korrel m>; Malfant, Christopher < Christopher.Malfant@aig.com>; Romano, Joseph < Joseph.Romano@</th><th>phen II, Thomas</th></connie.yu@a<>	Clemons@aig.com < <u>Frederick.Vance</u> i.com>; Orlando, A Knepple, Paul < <u>Pa</u> aig.com>	<u>2@aig.com</u> >; Keothavong, Lena < <u>Lena.Keothavong@aig.con</u> .lexander J < <u>Alexander.Orlando@aig.com</u> >; Leventis, Christi	Geng@aig.com>; Roberts, Sam < Sam.Roberts@aig.com>; Keothavong, Lena < Lena.Keothavong@ ip>; Steele, Tim < Tim.Steele@aig.com>; Shikov, Milen < Milen.Shikov@aig.com>; DeTommaso, Ste ne < Christine.Leventis@aig.com>; Brogdon, Christopher < Christopher.Brogdon@aig.com>; Korrel m>; Malfant, Christopher < Christopher.Malfant@aig.com>; Romano, Joseph < Joseph.Romano@	phen II, Thomas
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Walkthrough Sample – US Public ABS Cashflow review - CA-3806719

Cashflows for non-impaired Public ABS securities submitted to Investment Accounting - Extract

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	G1		→ (e)	<i>f</i> _∗ Cash	flow							
4	А	В	С	D	E	F	G	Н	I	J	K	L
1	Bond	Period	Date	Principal	Interest	Interest Shortfall	Cashflow	Balance	Interest Accrual Balance	Days In Accrual Period	Coupon	Factor
2	78471WAB1	0	Jan 01, 2019	0.00	0.00	0.00	0.00	10,000,000.00				1.0000
3	78471WAB1	1	Jan 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
4	78471WAB1	2	Feb 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
5	78471WAB1	3	Mar 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
6	78471WAB1	4	Apr 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
7	78471WAB1	5	May 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
8	78471WAB1	6	Jun 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
9	78471WAB1	7	Jul 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
10	78471WAB1	8	Aug 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
11	78471WAB1	9	Sep 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
12	78471WAB1	10	Oct 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
13	78471WAB1	11	Nov 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
14	78471WAB1	12	Dec 25, 2019	0.00	27,916.67	0.00	27,916.67	10,000,000.00	10,000,000.00	30	3.3500	1.0000
15	78471WAB1	13	Jan 25, 2020	111,680.24	27,916.67	0.00	139,596.91	9,888,319.76	10,000,000.00	30	3.3500	0.9888
16	78471WAB1	14	Feb 25, 2020	823,622.20	27,604.89	0.00	851,227.09	9,064,697.56	9,888,319.76	30	3.3500	0.9065
17	78471WAB1	15	Mar 25, 2020	816,905.65	25,305.61	0.00	842,211.27	8,247,791.90	9,064,697.56	30	3.3500	0.8248
18	78471WAB1	16	Apr 25, 2020	789,191.37	23,025.09	0.00	812,216.45	7,458,600.54	8,247,791.90	30	3.3500	0.7459
19	78471WAB1	17	May 25, 2020	776,848.40	20,821.93	0.00	797,670.32	6,681,752.14	7,458,600.54	30	3.3500	0.6682
20	78471WAB1	18	Jun 25, 2020	755,171.10	18,653.22	0.00	773,824.33	5,926,581.04	6,681,752.14	30	3.3500	0.5927
21	78471WAB1	19	Jul 25, 2020	742,402.98	16,545.04	0.00	758,948.01	5,184,178.06	5,926,581.04	30	3.3500	0.5184
22	78471WAB1	20	Aug 25, 2020	719,882.65	14,472.50	0.00	734,355.14	4,464,295.42	5,184,178.06	30	3.3500	0.4464
23	78471WAB1	21	Sep 25, 2020	700,350.71	12,462.82	0.00	712,813.53	3,763,944.71	4,464,295.42	30	3.3500	0.3764
24	78471WAB1	22	Oct 25, 2020	685,053.59	10,507.68	0.00	695,561.27	3,078,891.12	3,763,944.71	30	3.3500	0.3079
25	78471WAB1	23	Nov 25, 2020	659,301.03	8,595.24	0.00	667,896.27	2,419,590.08	3,078,891.12	30	3.3500	0.2420
26	78471WAB1	24	Dec 25, 2020	642,210.25	6,754.69	0.00	648,964.94	1,777,379.83	2,419,590.08	30	3.3500	0.1777
27	78471WAB1	25	Jan 25, 2021	614,980.06	4,961.85	0.00	619,941.91	1,162,399.77	1,777,379.83	30	3.3500	0.1162
28	78471WAB1	26	Feb 25, 2021	574,872.53	3,245.03	0.00	578,117.56	587,527.24	1,162,399.77	30	3.3500	0.0588
29	78471WAB1	27	Mar 25, 2021	523,010.77	1,640.18	0.00	524,650.95	64,516.48	587,527.24	30	3.3500	0.0065
	78471WAB1	28	Apr 25, 2021	64,516.48	180.11	0.00	64,696.58	0.00	64,516.48	30	2 2500	0.0000

Appian Approval of Public ABS OTTI Memo - Extract

General Document Approval

General Information

Request ID: 9929

Subject: Process Mamo: US - Q1/2019 for ABS Submission Date: 3/11/2019 2:46 PM EDT

Final Approval Due Date: 5/31/2019 5:00 PM EDT

Initiator : Thomas Korrell Second Initiator :

Documents Approved: 2019Q1 OTTI - ABS Process Memo version1; Auto Watchlist - 1Q19 version1; Consumer Loan Watchlist - 1Q19 version1; Credit Card Watchlist - 1Q19 version1; SL Watchlist - 1Q19 version1

Initiator Comments

Comments	Comments made by	Comments made on
Process Memo: US - 1Q/2019 for ABS	Thomas Korrell	3/11/2019 3:01 PM
		EDT

Reviewers Comments

Reviewer level	Reviewer Name	Reviewed Documents Name	Comments	Decision	Assigned On	Completed On
1	Paul Kneppie	2019Q1 OTTI - ABS Process Memo version1, Auto Watchlist- 1Q19 version1, Consumer Loan Watchlist- 1Q19 version1, Credit Card Watchlist- 1Q19 version1, SL Watchlist 1019 version1	Approved.	Completed Review	3/11/2019 3:02 PM EDT	3/12/2019 8:52 AM EDT
2	Andrey Jamsley	2019Q1 OTTI - ABS Process Memo version1, Auto Watchlist - 1Q19 version1, Consumer Loan Watchlist - 1Q19 version1, Credit Card Watchlist - 1Q19 version1, SL Watchlist 1Q19 version1	Reviewed	Completed Review	3/12/2019 8:52 AM EDT	3/12/2019 2:34 PM EDT
3	Andrew Payne	2019Q1 OTTI - ABS Process Memo_version1, Auto Watchlist - 1Q19_version1,	Review complete.	Completed Review	3/12/2019 2:34 PM EDT	3/12/2019 3:58 PM EDT

		Consumer Loan Watchlist - 1019 version1, Credit Card Watchlist - 1019 version1, SL Watchlist 1019 version1			
3	Kenneth Mcgloin	2019Q1 ÖTTI - ABS Process Mamo version1, Anto Watchlist - 1Q19 version1, Consumer Loan Watchlist - 1Q19 version1, Credit Card Watchlist - 1Q19 version1, SL Watchlist 1Q19 version1	Completed Review	3/12/2019 2:34 PM EDT	3/12/2019 6:32 PM EDT

Approvers Comments

Approval level	Approver Name	Approved Documents Name	Comments	Decision	Assigned On	Completed On
1	Ryan Fulmer	2019Q1 OTTI - ABS Process Mamo_version1, Auto Watchhist- 1Q19_version1, Consumer Loan Watchhist- 1Q19_version1, Cradit Card Watchlist- 1Q19_version1, SL Watchhist_1Q19_version1	approved	Approved	3/12/2019 6:52 PM EDT	3/13/2019 9-38 AM EDT
1	Geoffrey Camell	2019QI OTTI - ABS Process Mamo_versionl, Auto Watchhist- 1Q19_versionl, Consumer Loan Watchhist- 1Q19_versionl, Credit Card Watchhist- 1Q19_versionl, SL Watchhist: 1Q19_versionl	Approved	Approved	3/12/2019 6:52 PM EDT	3/13/2019 10:47 AM EDT
2	Andrey Jiansky	2019Q1 OTTI - ABS Process Memo version1, Anto Watchlist - 1Q19 version1, Consumer Loan Watchlist - 1Q19 version1, Credit Card Watchlist - 1Q19 version1, SL Watchlist 1Q19 version1	Approved	Approved	3/13/2019 10:47 AM EDT	3/13/2019 11:07 AM EDT
3	Kenneth Mcgloin	2019Q1 OTTI - ABS Process Memo version1,	Approved	Approved	3/13/2019 11:07 AM	3/13/2019 12:15
		1Q19_version1, Consumer Loan Watchlist - 1Q19_version1, Credit Card Watchlist - 1Q19_version1, SL Watchlist 1Q19_version1				
3	Andrew Payne	2019Qt OTTI - ABS Process Mamo yearion1, Auto Watchlist - 1Q19 yearion1, Consumer Loan Watchlist - 1Q19 yearion1, Credit Card Watchlist - 1Q19 yearion1, SL Watchlist 1Q19 yearion1	Approved.	Approved	3/13/2019 11:07 AM EDT	3/13/2019 12:16 PM EDT



Approved Public ABS OTTI memo of Q1'2019 - Extract



80 Pine Street, 8th Floor www.alg.com

Paul Knepple, Andrew Forster, Geoff Cornell, Kenneth McGloin, Andy Payne,

Andrey Jiansky FROM: Public ABS Team

DATE: March 8, 2019

ALG Investments Public ABS Quarterly Surveillance and OTH Process

Summary of Major Changes and First Quarter 2019 Impairment Recommendations

No changes in methodology.

No impairments recommended for 1Q 2019.

Purchases of \$119mm and Sales of \$211mm.

Portfolio Summary (In Scope)

	Sook Value USD SAAF 1/31	Market Value USD GAAP 1/51	Sook Value USD GAAF 10/51	Market Value USD GAAP 10/51	8V QoQ Chango	MV QoQ Chango
Student Loans	\$ 1,072,476,557	\$ 1,089,425,666	\$ 1,054,052,748	\$ 1,071,601,129	\$ 18,445759	\$ 17,822,557
rrow	\$ 57,215,451	\$ 61,074,612	\$ 51,791,945	\$ 56,508,029	\$ 5,425,488	\$ 4,560,583
Private	\$ 2,025,262,207	\$ 1,028,549,055	\$ 1,002,240,805	\$ 2,025,095,202	\$ 15,020,504	\$ 15,255,954
Credit Cards	\$ 792,409,962	\$ 799,256,202	\$ 945,607,840	\$ 951,525,052	\$ (155,197,878)	\$ (152,291,850)
Auto - Loan	\$ 198,056,624	\$ 197,777,968	\$ 236,546,999	\$ 232,626,752	\$ (9,524,953)	\$ (5,794,463)
Auto - Lease	\$ 62,255,127	\$ 62,566,148	\$ 46,441,548	\$ 46,164,103	\$ 9,195,598	\$ 9,552,587
Auto - Floorplan	\$ 201,647,467	\$ 202,163,401	\$ 217,074,400	\$ 216,702,605	\$ (57,762,945)	\$ (56,924,067)
Consumer Loans	\$ 195,222,565	\$ 195,970,835	\$ 180,559,507	\$ 179,698,191	\$ 14,663,555	\$ 16,272,642
Grand Total	\$ 2,522,079,582	\$ 2,546,988,218	\$ 2,680,264,641	\$ 2,698,320,833	\$ (158,185,059)	\$ (151,382,615)

**\$119mm in purchases: \$57mm Student Loan, \$23mm Auto Lease, \$20mm Auto Loan and \$18mm Consumer

**\$211mm in sales: \$146mm Cards, \$49mm Auto Loan and \$15mm Auto Floorplan

Security Screening Process
Given the diverse nature of AIG's ABS portfolio and sector-specific risks, the SPG (Structured) Products Group) divides the portfolio by collateral type to complete its quarterly credit review process. The Public ABS portfolio is generally divided into the following four categories: Credit Cards, Autos (Loans, Leases and Floor Plan) Student Loans and Consumer Loans.

I. CreditCards

Systems and Data Sources
Monthly teeds of ABS-specific risk metrics are downloaded from Intex (the primary source of data). Securities that fail primary surveillance screens are then run through Intex's cash flow engine. In addition, other data sources such as Bloomberg, trustee reports, prospectuses may be utilized as a secondary source in order to as semble the necessary risk metrics to make a fair credit assessment.

Credit Card transactions incorporate a revolving Master Trust structure for which monthly performance data is reported. Deterioration in monthly performance data (principally, a decline in three-month average Excess Spread below 0%) can automatically trigger an Early Amortization Event. At that time, the revolving period ends and all cash flows are used to amortize the notes. A principal write

down can occur if the deterioration in performance depletes a bond's credit enhancement before principal is fully repaid. SPG's surveillance efforts are focused around predicting the likelihood of such

Monthly performance data is downloaded from Bloomberg, Intex, and rating agency websites and compiled into a single spreadsheet for analysis. Downloaded data points include:

- Monthly Payment Rate
- Gross Portfolio Yield
- Charge offs
- Delinguencies Excess Spread
- Credit Enhancement

Additional descriptive information (e.g. Credit Rating, WAL, Original/Current Face, Book/Market Prices) is updated from the IDR.

All securities with three-month average Excess Spread levels below 4.5% are flagged for further manual review by the Portfolio Management Team. (All of AIG's positions have three-month average Excess Spread greater than 10%.) 4.5% is the level below which most transactions begin retaining Excess Spread to fund subordinate reserve accounts. A reduction in Excess Spread below 4.5% is a realistic indicator of increased risk of Early Amortization. During an early amortization event (i.e., excess spread < 0%), all principal collections become allocable to investors immediately (no new receivables are added). An OTTI credit impairment would be recommended if the cash flows generated under this revised scenario do not forecast full return of principal and interest. Screened securities which return full principal and interest are added to the watch list.

Sector Overview
Aggregate household debt balances ticked up in the fourth quarter of 2018 for the 18th consecutive quarter, and are now \$869billion (6.9%) higher than the previous (2008Q3) peak of \$12.68 trillion. As of December 31, 2018, total household indebtedness was \$13.54 trillion, a \$32 billion (0.2%) increase from the third quarter of 2018. Overall household debt is now 21.4% above the 2013Q2 trough.

The number of credit inquiries within the past six months – an indicator of consumer credit demand – declined to the lowest level seen in the history of the data.

Credit card balances rose by \$26 billion to \$870 billion. The increase in credit card balances is consistent with seasonal patterns but marks the first time credit card balances re-touched the 2008 nominal peak. The US economy continued to expand and unemployment stayed low, supporting obligors' ability to make payments on their credit card debt. Although a modest net share of banks reported tighter limits for credit cards in the most Senior Loan Officer Survey, a moderate net share of banks expect tighter standards for credit card loans and weaker performance in 2019.

As of February 2019, the JPM index of bank sponsored cards reported excess spread of 13.94% and chargeoffs of 2.26%. The charge-off rate for credit card ABS is 33bps above the recession low. While the charge-off and delinquency rates of credit card ABS continued to increase marginally year over year as of December 2018, the payment rate, yield and excess spread performance continued to improve from 201 / levels.

Portfolio activity during the period included \$146mm in sales, primarily related to a cash raise for AIG Parent. The credit card portfolio totaled \$792mmas of 1/31/19. Credit card ABS offers an attractive alternative to similar duration agencies and unsecured corporate bonds.

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Key Inventories

Inventory Type	Details
Systems	 Bloomberg AIM Clearwater Analytics Appian Workflow Intex Cashflow Tool
Models	 US Non-Agency RMBS(LPRM) US Single Family Rental RMBS Model US CMBS - Compass PPR/TREPP
EUCs (End User Computation)	US Single Family Rental RMBS Model
Key Reports	Trade Blotter Report
System Interfaces	Trades are entered into Bloomberg and flow to Clearwater
Automated Calculation/System Functionality	Trade Blotter in Appian cannot be modified
Automated Reconciliations	• None

