

Bank of America Merrill Lynch

Who needs securitisations and covered bonds?

22 January 2016

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Refer to important disclosures on page 20-24.

Summary (1)



- EU securitisation can be divided between:
 - cash placed (distributed with investor) transactions and
 - retained (for ECB or other repo financing) transactions.
 - synthetic securitisation for risk transfer purposes
 - Today, majority of EU securitisations are funding transactions, as opposed to the funding-and-risktransfer transactions of the past.
- EU securitisation market is contracting rapidly, with net negative supply and shrinking investor base, largely due to:
 - punitive regulatory framework;
 - favourable regulatory treatment of competing funding and investment instruments (covered bonds, loan portfolio sales, ECB funding);
 - constraints on its ability to capture the benefits of the securitisation technique (risk transfer, reach to wide investor base, self-liquidating financing, asset reduction);
 - lack of 'level' playing field across different funding and investment instruments (covered bonds, whole loan sales, direct lending by traditional investors, etc.).

Summary (2)

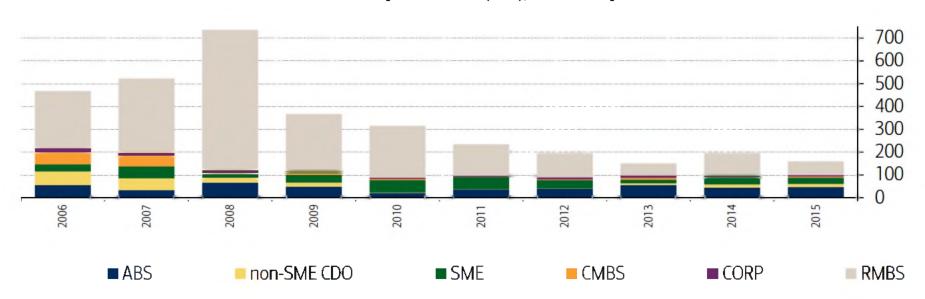


- EU securitisation market is needed to help:
 - provide funding for banks, corporates and SMEs by 'liquifying' illiquid loans;
 - access a wider range of investors even under stressed market conditions;
 - allow long-term investors, such as pension funds and insurance companies, another route to provide capital to the real economy;
 - provide desired investment instruments to a wide range of investors;
 - support banks to distribute risks, reduce assets, access funding, improve balance sheets;
 - facilitate the development of a capital markets union (CMU) in the EU;
 - facilitate the monetary policy of ECB.
- EU securitisation market has a strong track record in:
 - providing finance to the real economy
 - maintaining strong credit performance
 - attracting good level of liquidity
 - furnishing diversification of funding and investment opportunities
 - complimenting other forms of secured funding and investments (covered bonds, secured loans)

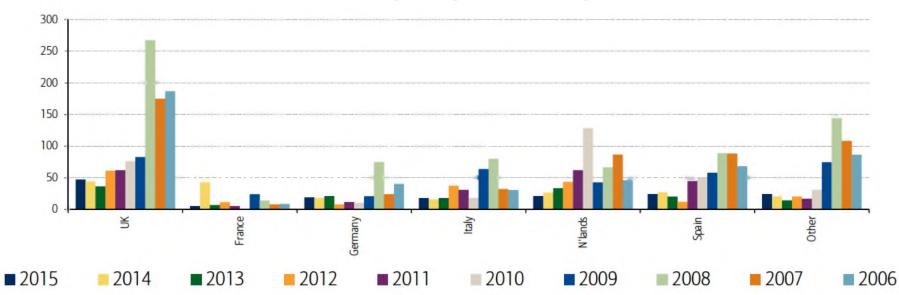
SF new issuance volume – a longer term view



Issuance by asset class(€bn), as of 2015ytd



Issuance by country (€bn) as of 2015ytd



Placed vs. retained transactions vs. BWIC flows



Primary market, €mn

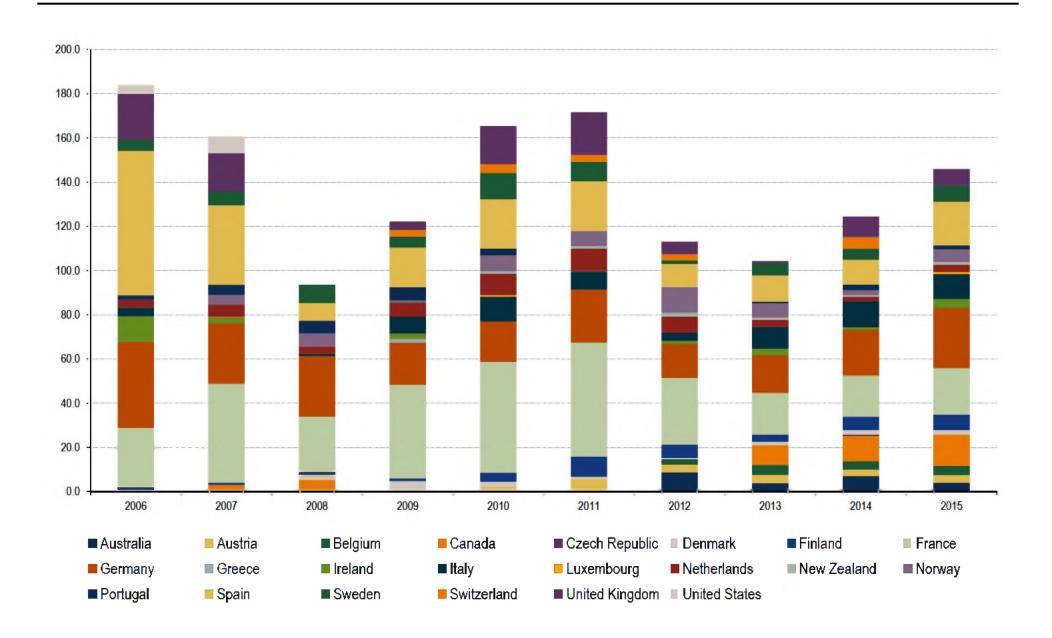
2014 2015 **Assumed Assumed** placed placed **Assumed** Total **Assumed** Total retained (incl.private) 2014 retained (incl.private) 2015 ABS 27,105 17.572 44.678 25.871 20,719 46,590 RMBS 73,493 24.023 97,516 27.279 32.606 59.886 SME 26,816 1,581 28,397 24,674 2,161 26,835 127,414 Sub-total 43,176 170,591 77,824 55,487 133,311 CLO 14,569 14,569 14,145 14,145 CMBS 4.122 4.122 5,487 5.487 Corp 7,360 7,360 6,591 6,591 26,051 26,223 Sub-total 26,051 26,223 127,414 69,227 196,642 77,824 81,710 159,534 Total

BWIC volumes, €mn

	2012/9	2013	2014	2015/10
RMBS, ABS & SME CLO	17,587	27,964	40,375	29,603
UK Prime RMBS	3,895	5,631	7,497	3,774
Dutch Prime RMBS	917	878	2,320	1,738
Sp ani sh Prime RMBS	2,352	3,516	7,615	7,052
Italian Prime RMBS	820	2,458	2,574	3,203
Auto ABS**	1,253	1,390	749	1,575
SME CLO	1,026	1,156	1,426	380
Other RMBS/ABS*	7 ,32 4	12,936	18,193	11,880
Leveraged loan CLO	5,025	8,099	7,267	5,742
CMBS	4,603	6,985	6,410	4,838
Total	27,215	43,047	54,052	40,183

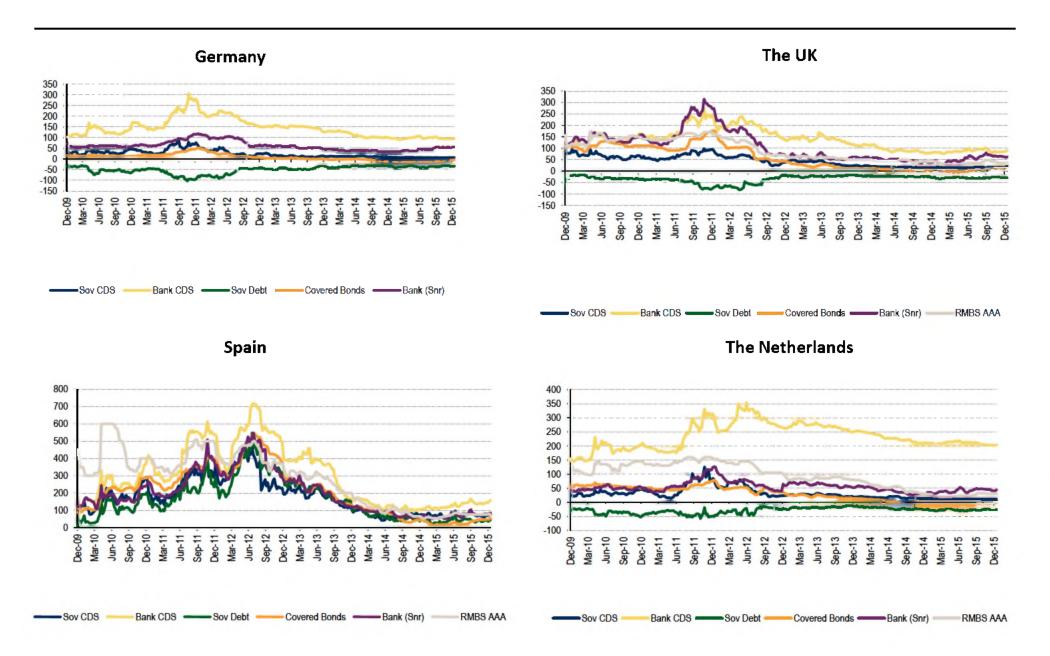
Covered bond supply





Should covered bonds price inside the sovereign?





The macro picture



EU aggregate MFI balance sheet

Assets

Loans to financials ex. MFIs and ICPF €1tn

Loans to nonfinancials €4.3tn

Loans to HH: cons. credit €5.3tn

Loans to HH: house purchase €3.9tn

Loans to HH: other €0.8tn

Source: ECB

NPL O/s €1.2tr

Source: PWC

Non-core portfolios and businesses, NPLs TBD? Asset-based Finance

CBs (2014)

Total o/s €2.5tn:

- Public sector 0.4tn
- Mortgages €2.1tn
- Ships €9.8bn
- Other €1bn

Public placement €1.9tn

- Benchmark
 (>€500mn) €1.5tn
- Benchmark (<€500mn) €275bn
 Private placement €694bn

Source: ECBC

Securitisation (2Q15)

Total o/s €1.3tn:

- ABS €195bn
- CDO/CLO €100bn
- CMBS€83bn
- RMBS €789bn
- SME €97bn
- WBS/PFI \$72bn

Issuer Considerations

Balance sheet treatment Regulatory capital Leverage ratio NSFR

LCR

Funding diversity
Capital
TLAC

Trading book review Market liquidity

Publicity
Positive and Negative

Transparency/disclosure
Data protection
Attestation

Investor Considerations

Yield
Capital
Market liquidity
Broker/dealers
availability
Regulatory liquidity
Bond optionality
Legal framework
Systemic support

Operational requirements
Due diligence
Cost base

Validation, assessment, certification, audit

ECB and EC action / inaction

Regulatory oversight, System efficiency
Cost overlay, Public support

Source: AFME

Covered bonds



Assets

Residential mortgage loans

Commercial real estate loans

Public sector debt

Shipping loans Aircraft leases

SME loans

MBS (legacy)

Banks and bank subsidiaries

Structures

Traditional CB (special law based)

Structured CB (contract law)

UCITS-compliant (EU, non-EU)

CRR compliant (Labelled CB)

Mortgage pass-through bonds

Balance sheet or SPV structure

Conditional passthrough CB

Dual - recourse bonds?

Regulation

Preferential capital treatment under CRR & Solvency 2

Preferential liquidity treatment under LCR

Preferential operational / investment regime

Preferential ECB treatment

Multiple assets, structures, products and legal frameworks

credit history - no defaults,
result of bail-outs,
sovereigns caps, bank
downgrades, rating
methodology changes, and
systematic support (i.e.
European champion)

Pros/Cons

Systemic risk / reputation (too-big-to-fail)

Asset encumbrance/ financial flexibility

Stable, competitive funding source

ALM cost

Past bail-outs/ Future no bail-ins

Innovation integrating securitisation features

Double counting of dual recourse (CRR)

Enforceability of dual recourse

Credit vs. Rates product

Transparency/ disclosure

Securitisation



Assets

Residential mortgage loans Consumer credit Auto loans

Auto leases Equipment leases Aircraft leases Commercial RE

SME loans Corporate loans

NPLs

Other

Banks
Non-banks
Corporates
Other

Structures

PCS label ABS, RMBS

ABS, RMBS, CMBS, CLO, WBS

Securitisation law or contract law

> Mortgage passthrough bonds

SPV structure

Cash or synthetic

Guaranteed

Flexibility to meet the needs and demands of new assets, issuers or investors

Regulation

Punitive capital treatment under BIS and Solvency 2

Limited liquidity treatment under LCR (2B)

Complex and burdensome operational and investment regime

Limited ECB treatment

Multiple interpretations

Securitisation vs. exposure regulation

Multiple assets, structures, products and legal regimes
Negative publicity
Credit history – overall positive with few exceptions

Pros/Cons

Idiosyncratic risks

Diversification

'Liquification'/ liquidity

Balance sheet and risk transfer relief

Self-liquidating

No bail-out/ No bail-in

Innovation for new products and assets

Actual performance of underlying asset pool

Forecasting loan pool credit and prepayment performance

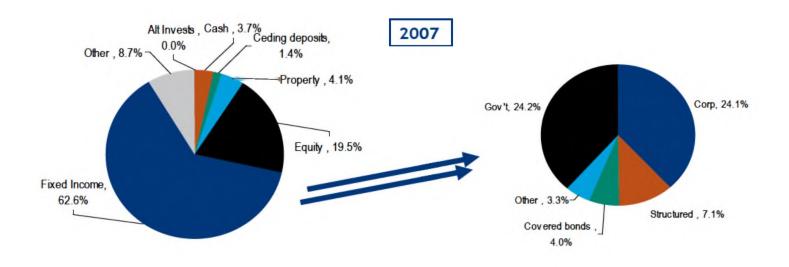


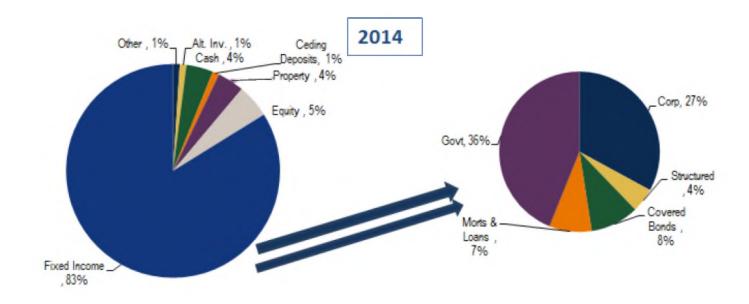
European SF, CB and bank assets as % of GDP

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Total SF, % of GDP	0.29%	0.98%	1.69%	0.96%	2.92%	0.85%	0.40%	0.43%	0.29%	0.76%	0.63%
Germany	Total CB, % of GDP	7.66%	7.51%	6.98%	5.39%	5.97%	4.49%	3.37%	2.66%	2.05%	1.75%	1.57%
	Bank assets, % of GDP	291.43%	298.12%	298.94%	302.10%	308.10%	302.25%	321.88%	310.51%	298.62%	266.91%	267.60%
	Total SF, % of GDP	3.26%	4.67%	6.77%	8.17%	7.96%	5.37%	4.63%	4.20%	1.16%	1.96%	2.61%
Spain	Total CB, % of GDP	4.58%	6.47%	7.44%	5.32%	5.00%	4.09%	5.35%	8.63%	10.09%	2.79%	2.39%
	Bank assets, % of GDP	206.10%	237.25%	250.69%	278.06%	305.45%	319.43%	321.12%	338.30%	343.39%	305.62%	285.56%
	Total SF, % of GDP	0.34%	0.44%	0.47%	0.41%	0.71%	1.23%	0.04%	0.27%	0.55%	0.33%	2.02%
France	Total CB, % of GDP	1.49%	1.61%	2.27%	3.12%	3.99%	3.05%	3.64%	4.95%	2.80%	1.29%	1.22%
	Bank assets, % of GDP	279.63%	308.80%	333.05%	365.96%	386.33%	394.88%	391.65%	407.85%	386.97%	372.38%	383.45%
	Total SF, % of GDP	5.40%	7.04%	9.06%	8.07%	14.01%	4.96%	4.21%	3.32%	2.98%	1.78%	1.97%
UK	Total CB, % of GDP	0.58%	0.65%	1.25%	1.46%	6.34%	2.03%	1.43%	1.98%	1.81%	0.07%	0.56%
	Bank assets, % of GDP	379.95%	434.53%	474.06%	459.67%	457.33%	537.23%	505.98%	521. 51 %	465.45%	435.42%	399.13%
	Total SF, % of GDP	2.34%	2.38%	1.97%	2.00%	4.90%	4.07%	1.13%	1.89%	2.32%	1.13%	1.03%
Italy	Total CB, % of GDP	0.00%	0.27%	0.26%	0.00%	0.40%	0.67%	0.93%	2.15%	4.38%	1.79%	2.51%
	Bank assets, % of GDP	164.18%	174.39%	18 5.29%	211.60%	226.21%	238.07%	236.55%	247.90%	261.38%	251.93%	249.20%
	Total SF, % of GDP	3.49%	6.88%	7.98%	14.13%	10.41%	6.92%	20.30%	9.65%	6.76%	5.15%	3.97%
Netherlands	Total CB, % of GDP	0.00%	0.37%	0.95%	1.25%	0.84%	1.25%	2.16%	2.20%	1.66%	0.69%	0.59%
	Bank assets, % of GDP	320.19%	311.17%	318.22%	353.55%	349.13%	359.01%	358.00%	372.08%	379.87%	337.60%	369.96%

Shift in insurance companies fixed income holdings



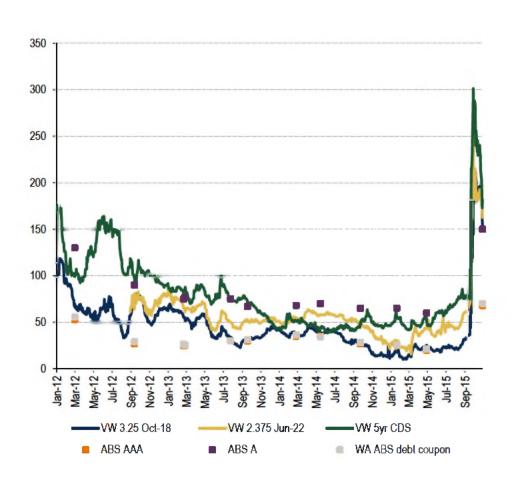




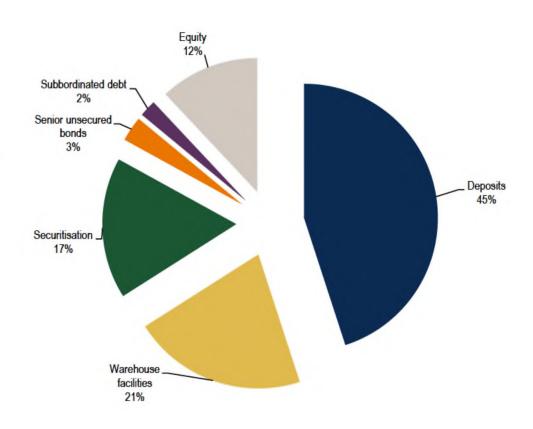
Funding diversification and alternatives



The case of VW financing

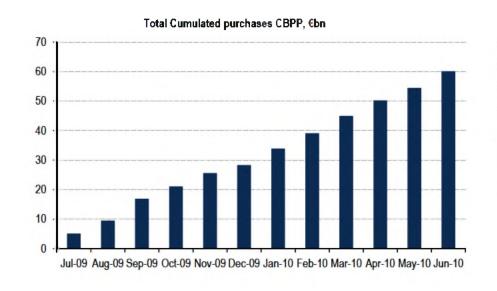


The case of SCL Nordax Bank Funding mix

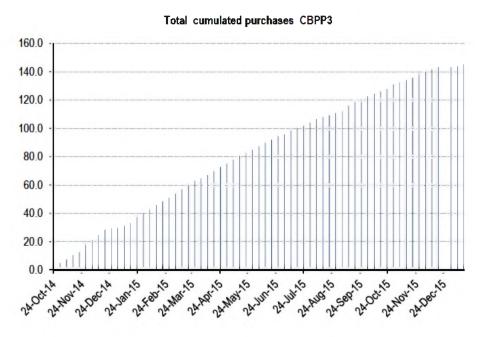


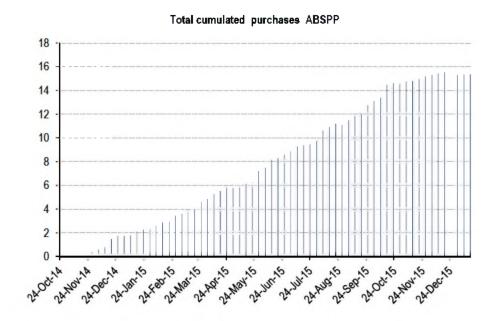
ECB CBPP1,2,3 and ABSPP(1?)











ECB repo operations



ECB public collateral data, 2013Q1 – 2015Q3

EUR billion, nominal amounts, averages of end of month data over each time period shown

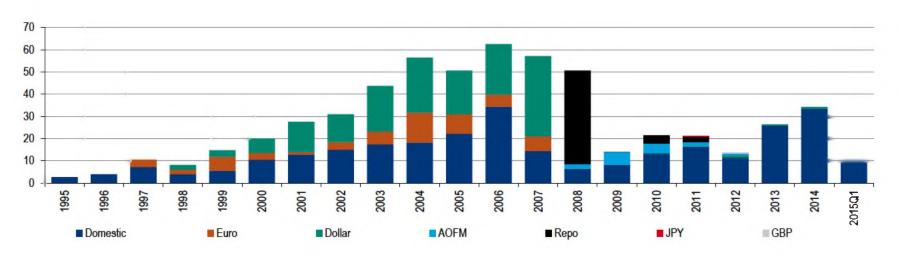
	Eligible marketable assets										
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3
Central government securities	6298.5	6472	6 473.1	6371.5	6458.9	6 578.9	6584.6	6 642.4	6663.9	6687.9	6683.3
Regional governmeent securities	418.4	420.7	425.7	428.5	430.8	433.9	43 9 .5	440.3	441.3	437.5	433.3
Uncovered bank bonds	2533	2265.3	2225.6	2281.1	2260.8	2239.2	21 6 4.6	2129.1	2482.4	241 2.4	2136.4
Covered bank bonds	1623.9	1588.2	1560.6	1531.6	1508.9	1489.1	1450.3	1402.7	1374	1363.3	1358.8
Corporate bonds	1469.7	15 10.4	1519. 9	1456	1383.9	1412.8	1393.8	1393.3	1428.6	1436.5	1435.7
Asset-backed securities	837.4	797.2	801.4	761.1	726.4	684.2	691.9	660.9	635.3	613.6	626.4
Other marketable assets	1150.8	1138.8	1144.1	1167 .3	1217	1214.9	1194.5	1180.1	811.8	811.5	810.9
Total	14331.7	14192. 6	14150.4	13997.1	13986.7	14053	13919.2	13848.8	13837.3	13762.7	13484.8
			Use	of collateral							
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3
Central government securities	363	317	315	331	321	329	341.9	372. 6	364.9	340.7	338.7
Regional governmeent securities	90	91	92	96	97	96.6	9 7.8	98.9	9 7.3	90.2	88.9
Uncovered bank bonds	339	317	298	282	261	228.8	196.9	180.9	166.7	138.8	132.3
Covered bank bonds	469	445	435	402	378	360.9	35 2 .7	333.4	324	320.8	320.7
Corporate bonds	108	115	123	120	107	97.7	87	74.2	72.4	73.1	73.3
Asset-backed securities	338	348	370	32 5	307	300.9	306.2	309.2	304.1	295.1	306.8
Other marketable assets	133	124	119	118	118	113	117.1	117.2	101.3	97.9	105.5
Non-marketable*	644	612	579	536	527	452	355	362	370	372	363
Credit Claims*	473	453	429	404	392	382	355	362	370	372	363
Fixed term and cash deposits*	172	1 60	150	132	135	70	0	0	0	0	0
Total	2,483	2,367	2,330	2,210	2,113	1,979	1,855	1,848	1,801	1,729	1,729

Source; ECB

Australian RMBS market new issuance and AOFM support



Breakdown of Australian RMBS new issuance by placement, A\$bn



Source: BofA Merrill Lynch Global Research

BAML Estimates regarding the execution of the RMBS purchases by AOFM, A\$mn											
A\$ mn	Cu m .	2012	2011	2010	2009	2008					
Total # of AOFM Deals	60	7	13	20	16	4					
AOFM Investments	15,462	847	2,079	4,783	5,758	1,996					
AOFM Participation % Avg		7%	24%	33%	68%	78%					
AOFM Sales	3,391	329	999	849	674	540					
Source: BofA Merrill Lynch Global Research											

Credit performance

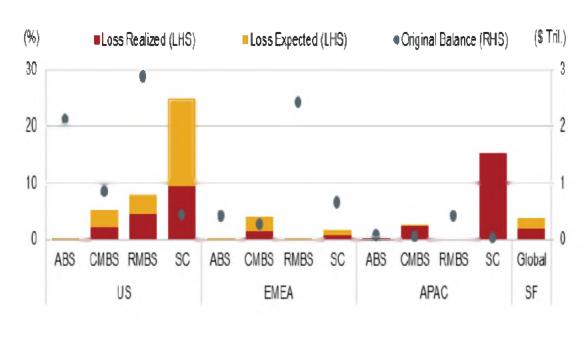


 Moody's review: 'Of 10,044 structured finance issues rated between 1 Jan 2009 and 30 June 2014, only 9 have become impaired through June 2014. None of these tranches was ever rated investment grade, leaving the investment grade impairment rate at 0% for all vintages and investment horizons.'

Moody's 12-mo impairment rated by sector and region, 1993-2014

	5-yr Ave	Hist Ave
Aisa-Pacific ABS	0.59	0.22
Aisa-Pacific CMBS	5.72	1.99
Aisa-Pacific RMBS	0.03	0.01
EMEA ABS	0.58	0.5
EMEA CMBS	2.82	1.26
EMEA RMBS	0.58	0.6
Global CDO ex CLOs	2.62	10.65
Global CLO	0.1	0.21
EMEA CLO	0.2	0.2
US CLO	0.1	0.2
Global other SF	1.34	3.45
US ABS	1.03	0.62
US CMBS	5.52	3.46
US RMBS	10.02	7.93
Global SF	6.35	5.8

Global Structured Finance Losses: 2000-2014 issuance



Source: Moody's Source: Fitch

Funding options: costs to issuers



		Required risk retention/haircut	Deal execution cost	Balance sheet treatment, capital benefits	Reporting	NSFR	ALM	Certification	Administrative/ criminal charges	
	Residential (75% LTV)									
Loans	Corporate BB loan	None	Medium	Off balance sheet upon sale	No specific contractual requirements	NA	NA	NA	NA	
	Unrated SME loan				requirements					
Senior	А	N	Lauri Na Para		Balance sheet and income	V	Not fully			
unsecured	BBB	None	Low/ Medium	On balance sheet	statement reporting	Yes	disclosed	NA	NA	
	AAA	Overcollateralisa tion required by law and by rating	Low	On balance sheet	Aggregate pool reporting	Yes	Required, not fully disclosed	NA		
Covered bonds	А								NA	
	BBB	agencies								
Securitisation	AAA			On or off balance			Match funded; interest rate			
(e.g. UK Prime	А	5% risk retention required for life of transaction								
RMBS)	ВВВ		I II ala							
	AAA		High	sheet, depending on execution	requirements tied to NCB repo eligibility	No, cash	hedging requirements and disclosure	Yes	Yes	
Securitisation (e.g. CLO)	А									
	BBB									
ECB funding		Haircut	Medium	On balance sheet	Depends on instrument used	NA	NA	NA	NA	

Investment options: costs to investors



		Capital (charges*	District and and in	LCD			Cost of investing	
		Bank	Insurance	Risk retention	LCR	ECB repo	Due diligence		
		Europe	Europe	Еигоре	Еигоре				
	Residential (75% LTV)	2.8%	3.0%						
Loans	Loans Corporate BB loan 8.0% 22.5% NA		NA	Permitted as non- marketable securities	no specific requirement	medium			
	Unrated SME loan	4.6%	15.0%						
	A	4.0%	7.0%			Category IV (e.g. 11% haircut for AAA-A 5yr	no specific requirement		
Senior unsecured	BBB	4.0%	12 .5%	NA	NA	fixed coupon bonds), 32.5% for similar BBB bonds		low	
	AAA	0.8%	3.5%	NA	70% Level 1B (7% haircut), 40% Level 2A (15% haircut) and	Category III/IV (e.g. 3% haircut for Category III AAA-A 5yr jumbo covered		low	
Covered bonds	А	1.6%	7.0%						
COVERCE BOILES	BBB	1.6%	22.5%		15% Level 2B (30% haircut), depending on rating, size, etc.	bonds), 22.5% for similar BBB bonds			
	AAA (senior)	1.6%	10.5%			Category V for eligible			
Securitisation (e.g. Prime RMBS)	A (mezz)	13.1%	15.0%	Responsibility of investor in	Some securitisation		Detailed due diligence requirements		
	BBB (mezz)	22.0%	15.0%	securitisation to ensure	permitted in level 2B. subject to a 25%/35%				
	AAA (senior)	1.6%	62.5%	originator/sponsor/ori ginal lender retains 5%, otherwise penalty	haircut depending on asset class). CLOs and CMBS not	NA		high	
Securitisation (e.g. CLO)	A (mezz)	13.1%	83.0%	capital charges or potential forced sale	eligible		Detailed due diligence required		
	BBB (mezz)	22.0%	98.5%						

^{*}For banks: Basel II standardised approach capital charges (CRR implementation for Europe), except for securitisation, where Basel III proposed ERBA is used for Europe and Basel III proposed IRBA is used for the US (based on a UK Prime RMBS). Solvency II for European insurance companies (assuming 5yr duration) and NAIC for US insurance (Life) companies. Capital charges for covered bonds assume CRD compliance; **Using BIS3 ERBA for banks and Solvency II for insurance companies

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