

# **European Asset Backed Securities**

#### **NNEK Vermogensevent 2024**

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Q1 2024



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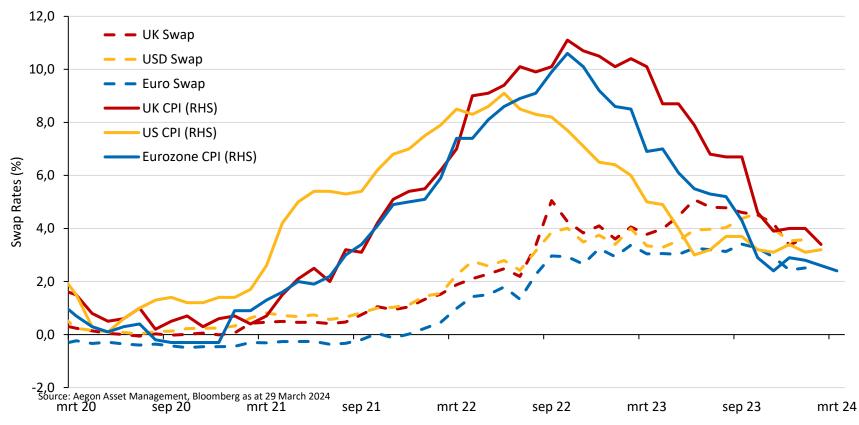
Market update



### Inflationary easing but still too high

#### Inflation (CPI) vs 5-year swap rates

(in local currency)



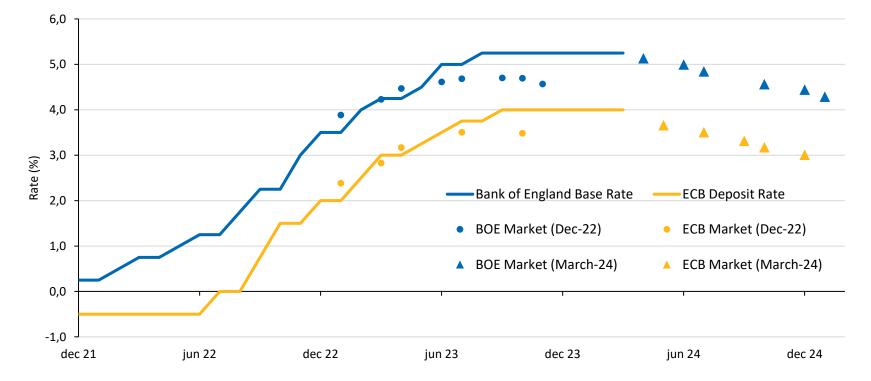


#### Interest rates – short end

Central bank official rates affect short end of the curve, but markets can be wrong

#### **Central bank rate setting**

(Market implied rates and actual rates)





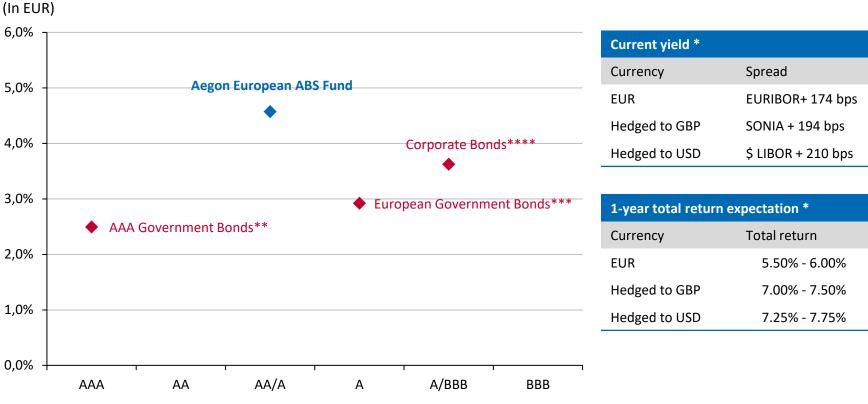
# **Investment case for European ABS**



## European ABS offers attractive yield (EUR)

Past performance does not predict future returns. The information is for informational purposes and readers should not assume that investments in the securities identified and discussed were or will be profitable. Outcomes, including the payment of income, are not guaranteed.

#### Yield-to-maturity of Select asset classes



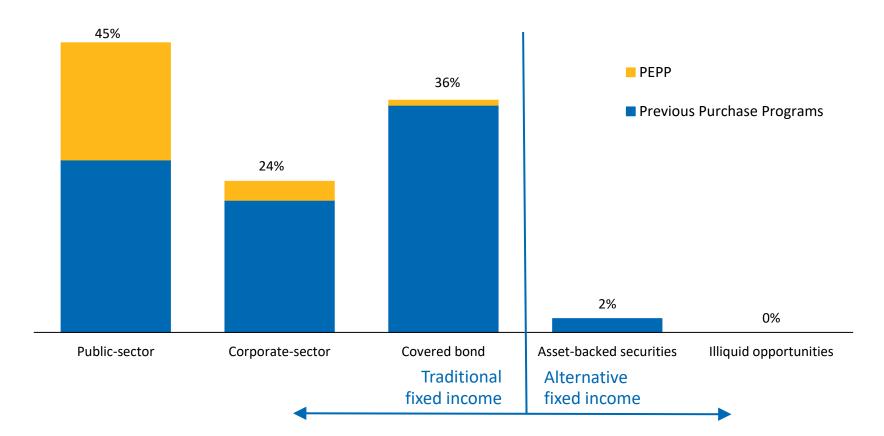
Source: Aegon Asset Management, Barclays, Bloomberg as at 29 March 2024. All yields are in EUR and gross of fees. \* Yields and Total Return Expectations with hedging to stated currency using 1-month FX forwards, \*\* Barclays Euro AAA Government Bond Index, \*\*\* Barclays Euro Aggregate Government Bond Index, \*\*\* Barclays Euro Aggregate Corporate Bond Index.



#### ECB asset purchasing programs

ECB's asset purchasing programs distorted traditional fixed income markets

#### Percentage of outstanding eligible markets purchased by the ECB

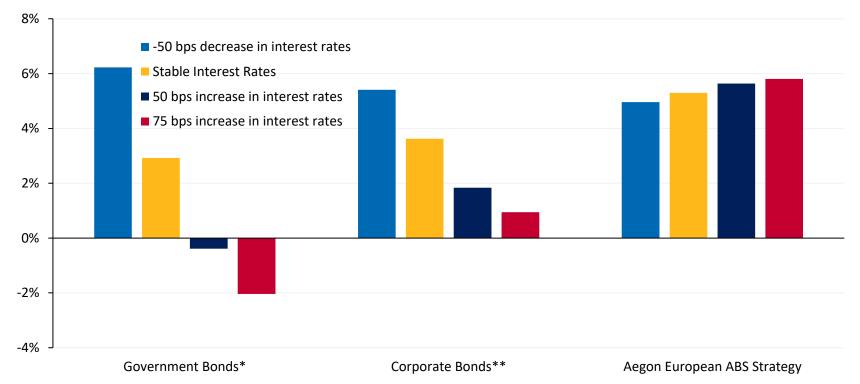




#### ABS has low interest rate sensitivity

#### Expected one-year return in different interest rate scenarios

(All returns in EUR and gross of fees)





#### ABS returns have had low correlation with traditional Fixed Income and Equities

	Government bonds	Investment grade credit	0	Emerging market debt	Covered bonds	Global equities	Listed real estate	European ABS
Government bonds (EUR)	1.0							
Investment grade credit (EUR)	0.6	1.0						
Global high yield	0.0	0.7	1.0					
Emerging market debt	0.3	0.7	0.8	1.0				
Covered bonds	0.8	0.8	0.2	0.4	1.0			
Global equities	0.1	0.5	0.7	0.5	0.2	1.0		
Listed real estate	0.0	0.1	0.2	0.2	0.0	0.1	1.0	
European ABS (EUR)	-0.0	0.4	0.4	0.3	0.2	0.3	0.0	1.0





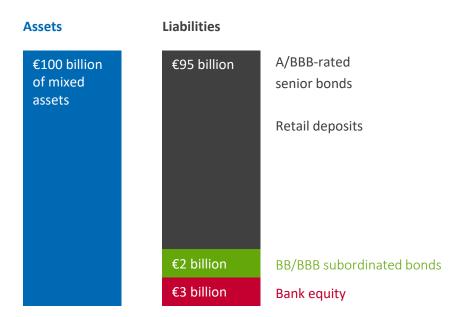
# European ABS market



#### ABS can be viewed as a 'mini-bank'

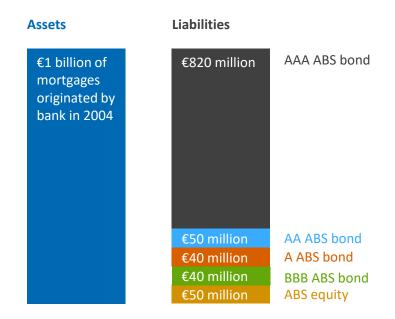
ABS has a similar capital structure as a regular bank, but has many advantages

#### **Normal bank**



- Assets on the balance sheet are unknown
- No term finance
- Balance sheets of banks look similar

#### **ABS portfolio**



- ABS collateral is known by investors
- Term finance
- Invest in the specific collateral that you like



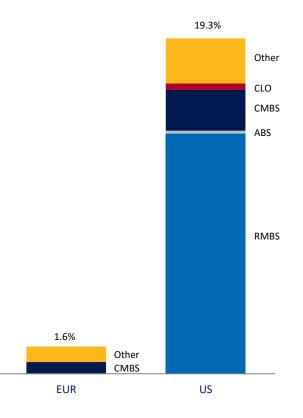
### European ABS is fundamentally different to US sub-prime

European ABS has proven much more resilient than US ABS

#### The markets work very differently

Mostly banks	Alt-A and sub-prime loans were mostly originated by intermediaries
Mostly to prime borrowers	Large segment of non- agency and non-prime borrowers
Full recourse on the borrower	Most US states have no full recourse on the borrower
The originator typically holds the equity tranche	Often no risk retention by the originator
	Mostly to prime borrowers Full recourse on the borrower The originator typically holds the

#### Cumulative default rate of ABS bonds From 2007-2014





### ABS market changed since Global Financial Crisis

Rating agency models	<ul> <li>Performance through a severer cycle is now known for all types of ABS collateral, and is taken i account in the latest rating agency models</li> </ul>	nto
Credit enhancement	<ul> <li>Generally higher than before GFC, especially for asset types that have performed poorly during GFC</li> </ul>	ŗ
Transparency	<ul> <li>Loan level collateral data is available. Also standardized trustee reporting, central data warehou and other measures have made analysis easier and much more robust</li> </ul>	use
Regulation	<ul> <li>EU Securitisation Regulation imposes stringent due diligence, stress testing and ongoing monitoring requirements on ABS investors</li> </ul>	
Investor base	<ul> <li>EU Securitisation Regulation effectively bans 'ABS tourists'; only professional ABS investors (e.g banks, asset managers) are now allowed to invest in ABS bonds</li> </ul>	<b>.</b>
Risk retention	<ul> <li>EU ABS originators subject to 5% risk retention, creates alignment-of-interest</li> </ul>	
ABS structures	✓ Only 'plain-vanilla ABS structures' nowadays; no more CDO^2, synthetic CDOs, CLNs, etc.	



## Diverse opportunity-set by country and collateral type

An ABS investment can offer a diversified exposure to (predominantly) consumer risk in Europe

	Consu	ımer risk	Corpo	rate risk	Commercial property	
	RMBS	Consumer loans	SME loans	Corporate loans	Mortgages	Tota
🔅 Pan Europe				21%		21%
К ПК	12%	4%			3%	18%
Italy	3%	5%	4%			12%
Netherlands	7%		2%			10%
Spain	7%	2%	1%			10%
France	13%	3%	1%			16%
Belgium	2%		2%			5%
Germany	3%	3%	1%			7%
Ireland	2%					2%
Portugal	1%	1%				1%
🕖 Other		1%	1%			1%
Total	48%	17%	10%	21%	3%	1009



**Our European ABS expertise** 



### ABS is a core expertise of Aegon Asset Management

#### Past performance does not predict future returns

Scale and resources	One of the largest dedicated ABS teams in Europe, and 20+ experienced investment professionals dedicated to the analysis of ABS bonds globally
	Manage €14.7 billion in ABS globally, of which €8.4 billion is in European ABS
	We also manage over EUR 60 billion in alternative fixed income, including ABS collateral across commercial and residential mortgages, consumer loans, private debt, leveraged loans and SME loans.
Long-standing experience	Ínvesting in European ABS since 2001
	Managed dedicated European ABS funds for external clients since 2004
Proven investment process	Consistent investment approach based on our proprietary models and systems
	European ABS strategy has outperformed the benchmark in almost every year
Extensive market reach	Strong relationships with issuers and brokers result in flow of opportunities
	Also active in buying whole-loan portfolios
Product range	European ABS UCITS fund with daily liquidity (a.o. EUR, GBP, USD share classes)
	ABS Opportunity fund
	European ABS segregated mandates
ESG	ESG and Responsible Investing fully integrated in ABS investment process
	No investments in ABS bonds with an ESG score of 4 and 5.



### Experienced and deeply-resourced investment team

A large, global team of ABS and CLO specialists as well as deep leveraged loan knowledge

	Global Hea	<b>Global Collaboration</b>							
	Public ABS		Privat	e ABS	Leverage	Leveraged Finance			
Euro	pean	US	European	US	European	US			
Frank Meijer, PhD Head European ABS 19 years' experience 19 years with firm	Stijn Stortelder, CFA CMBS 14 years' experience 14 years with firm	Tyler Knight, CFA Head, Overall 20 years' experience 16 years with firm	Bas Kragten Head, Overall 29 years' experience <1 year with the firm	James Baskin, CFA, Head, Overall 34 years' experience 28 years with firm	Herman Guelovani Head of leveraged Finance 32 years' experience 1 years with firm	Jason Felderman Head of leveraged Loans 24 years' experience 21 years with firm			
Egbert Bronsema RMBS and Consumer ABS 19 years' experience 8 years with firm	Jim Marinus, CFA CLO and RMBS 7 years' experience 7 years with firm	Ryan Baue, CFA, CAIA ABS and CLO 10 years' experience 5 years with firm	Jules Koekkoek Private ABS 18 years' experience <1 year with the firm	Greg Podhajsky, CFA Private ABS 33 years' experience 29 years with firm	<ul> <li>7 professionals Credit / Research Analysts</li> </ul>	<ul> <li>3 professionals Investment manager / Research Analyst</li> </ul>			
Bálint Vágvölgyi, PhD, CFA CLO and CMBS 15 years' experience 12 years with firm	Catherine Hu ABS and CLO 2 years' experience 2 years with the firm	Jim Elliott RMBS and CMBS 22 years' experience 3 years with firm	Vincent Kroes, CFA Private ABS 18 years' experience <1 year with the firm	Tara Bulman Private ABS 34 years' experience 34 years with firm	Global R Jennifer Moore Global Head of Credit Resear				
Ewout van der Meer, CFA CLO 15 years' experience 10 years with firm	Noor Diepman ABS and CLO 1 years' experience <1 year with the firm	Tom Manthe, CFA CMBS and RMBS 22 years' experience 22 years with firm	Remco van Amelsfoort, CFA Private ABS 13 years' experience <1 year with the firm		<ul> <li>26 years' experience</li> <li>24 years with firm</li> <li>26 credit analysts</li> <li>4 special situations and dist</li> </ul>	ressed credit analysts			
Maarten Jan Hoefnagel, CFA RMBS and Consumer ABS 18 years' experience 16 years with firm		Glen Kneeland CMBS and RMBS 21 years' experience 21 years with firm	Philip van der Meijden Private ABS & Mortgages 11 years' experience 4 years with firm		Responsible Inv Bruno Maradei Global Head of Responsible In 27 years' experience 5 years with firm				

21 Responsible Investment professionals

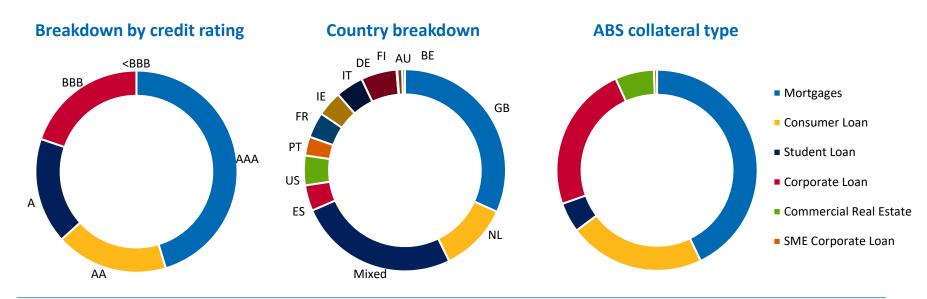


Source: Aegon Asset Management. Accurate as of 31 December 2023. Personnel may be employed by any of the Aegon Asset Management affiliates Industry and firm experience represent experience attained in 2023, expressed in number of years. Aegon European ABS strategy



### Aegon European ABS strategy – typical characteristics

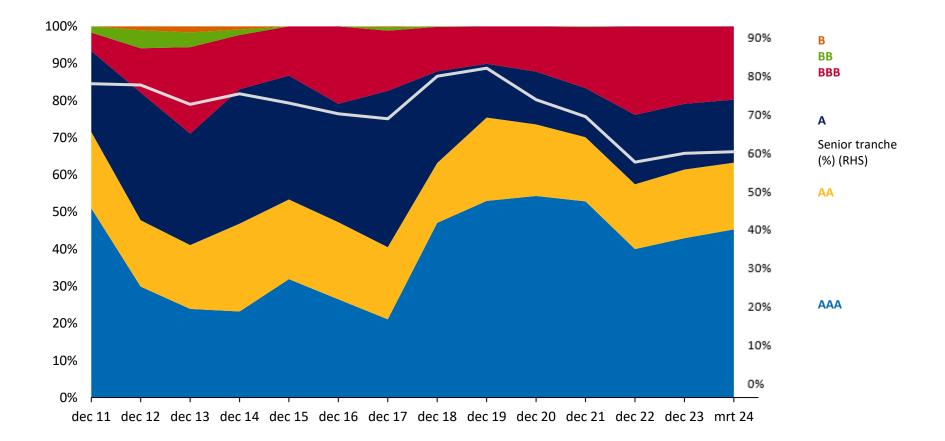
Past performance does not predict future returns



- Well diversified
- No leverage
- Average rating A+ (all bonds externally rated)
- 1-year total return expectation: 5.50% 6.00% in €
- Yield-to-Maturity: 4.58%
- Modified duration: 0.32 years
- Spread duration: 2.91 years
- Daily liquidity

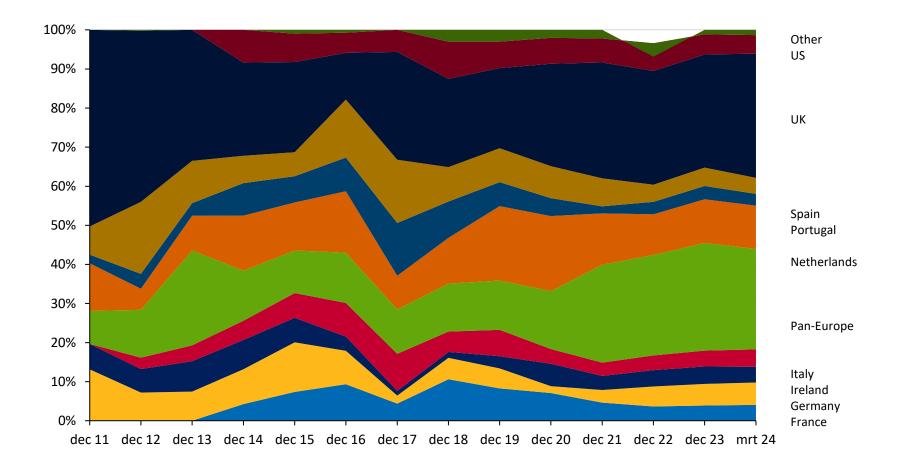


#### Active management of rating distribution



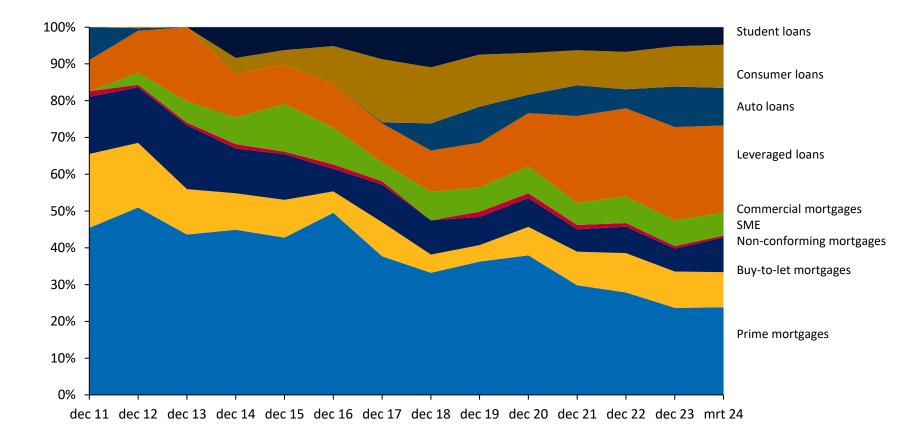


#### Active management of country allocation





#### Active management of collateral types





## Successful performance record in European ABS

Added value for clients through active management in almost every year since inception



#### Calendar year returns for Aegon European ABS \*

#### Relative performance vs. Barclays ABS benchmark \*,\*\*



#### Past performance does not predict future returns

Source: Aegon Asset Management. All figures presented gross of fees and in €. All data as at end of March 2024. This slide is supplemental information to the Composite disclose presentation at the end of this material.

\* 2005-2011 figures for Asset Backed Securities Insured Composite; creation date: December 1, 2004. This track record is intended for illustrative purposes only. Only professional investors within the meaning of the Dutch Financial Supervision Act ("Wft") who belong to the fiscal entity of Aegon N.V. can participate in the collective investment vehicle underlying this composite.
2021 2021 figures for European Eur

2012-2021 figures for European Asset Backed Securities Composite; creation date: July 1, 2011.

\*\* Market value-weighted combination of the Barclays Capital Euro ABS Floating Rate Composite Index (customized) and the Barclays Capital Euro ABS Fixed Rate Composite Index (customized).

# Absolute loss in just three of the past 19 years

Active approach outperformed the benchmark in 17 of 19 years



### Track record: European ABS Composite

Past performance does not predict future returns

Annualized gross returns <sup>^</sup> %					
	1 year	3 years	5 years	10 years	Inception
European ABS Composite*	8.17	2.08	1.69	2.97	3.97
Barclays ABS Benchmark**	4.53	1.20	0.96	1.35	2.04
Relative performance	3.64	0.88	0.74	1.62	1.92
Tracking error (ex-post) %		1.62	1.65	1.64	1.66
Information ratio		0.54	0.44	0.98	1.13
Calendar year gross returns %					
	2023	2022	2021	2020	2019
European ABS Composite*	8.17	-3.15	1.54	0.56	1.66
Barclays ABS Benchmark**	4.53	-1.31	0.46	0.09	1.10
Relative performance	3.64	-1.84	1.08	0.47	0.57

Source: Aegon Asset Management. All figures presented gross of fees and in €. ^Data as at end of December 2023 Please see the GIPS Report attached on page 56. Returns for periods longer than 12 months have been annualized.

\* Figures for European Asset Backed Securities Composite; creation date: July 1, 2011.

\*\* Market value-weighted combination of the Barclays Capital Euro ABS Floating Rate Composite Index and the Barclays Capital Euro ABS Fixed Rate Composite Index.

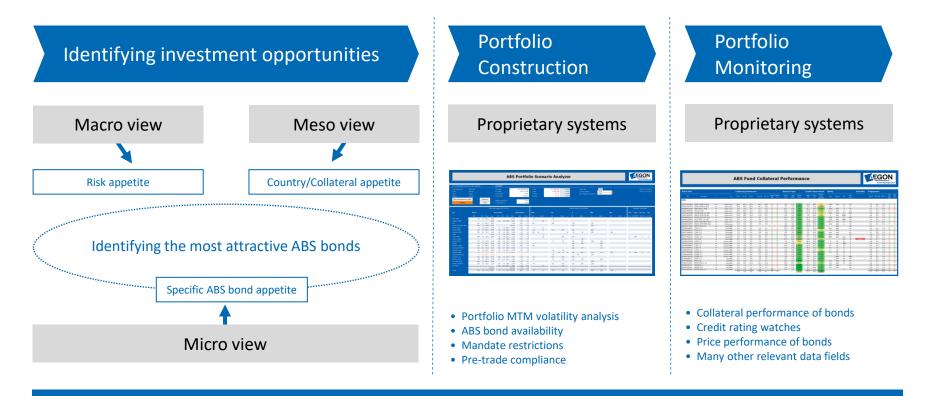


ABS investment process



#### Overview of the ABS investment process

Multi-angled process, with modelling and stress testing at the heart of every investment decision

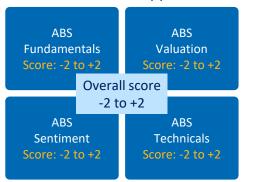


Portfolio Risk Management, Operational Risk Management, Compliance



## Identifying investment opportunities: Macro view

How to position the portfolio in terms of rating distribution and spread duration

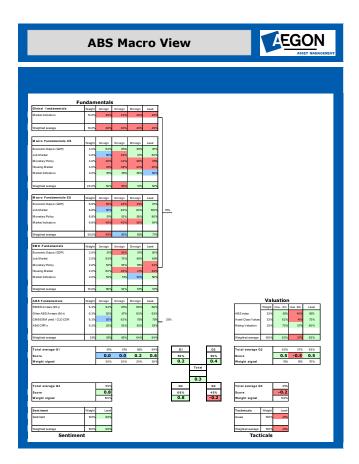


For the overall ABS asset class, we assess:

- Fundamentals: General ABS collateral performance, bullish on the world?
- Valuations: Relative value of ABS versus history and other asset classes
- Technicals: Supply/demand for ABS, ECB, regulatory (Basel3, Solvency II)
- Sentiment: Fading of toxic name, general "risk-on"/"risk-off" sentiment

Examples of (Macro) alpha sources for the strategy:

- Rating distribution (AAA, AA, A, BBB)
- Spread duration of ABS bonds (buy long-dated or short-dated ABS bonds)
- Carry-and-role-down strategy



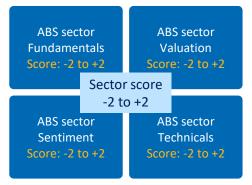


We use a balanced approach to determine our Macro View

### Identifying investment opportunities: Meso view

How to position the portfolio in terms of country and collateral type

We use a balanced approach to determine our ABS sector view:



For each ABS sector we assess:

- Fundamentals: Collateral performance, country fundamentals
- Valuations: Relative value of sector vs history, and other sectors
- Technicals: Supply/demand, sector regulation (ECB, LCR, Repo)
- Sentiment: Sector specific market consensus

Examples of (Meso) alpha sources for the strategy:

- Country allocation
- Collateral type allocation
- ECB Purchase Program eligible sectors, ECB repo-eligible sectors

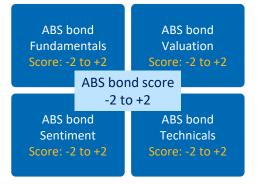
Meso	o View	(senior	bonds)			
Sector	Q1 Fundamentals	Q2 Valuation	Q3 Sentiment	Q4 Technicals	Total Score	Ranking
RMBS Core						
Dutch RMBS	1.7	-0.1	0.0	-0.2	0.37	10
UK Prime RMBS	1.6	0.2	-0.3	-0.1	0.37	11
UK Non-Conforming	0.7	1.7	-0.3	0.0	0.54	5
UK Buy-to-Let	1.5	1.7	-0.3	0.0	0.73	3
French RMBS	1.2	0.2	0.0	0.1	0.38	9
German RMBS	0.8	0.7	0.0	0.2	0.43	8
	Q1	Q2	Q3	Q4		
Sector	Fundamentals	Valuation	Sentiment	Technicals	Total Score	Ranking
Core						
Portuguese RMBS	1.4	1.1	-0.3	-0.1	0.54	6
Italian RMBS	0.7	0.7	-1.0	-0.5	-0.02	17
Irish RMBS	1.5	-0.6	0.0	-0.2	0.18	14
Spanish RMBS	0.7	0.3	-0.3	0.3	0.28	12
Sector	Q1 Fundamentals	Q2 Valuation	Q3 Sentiment	Q4 Technicals	Total Score	Ranking
ABS						
Credit Card ABS	1.4	-0.1	-0.3	0.1	0.28	13
Auto ABS	1.1	-0.3	0.0	-0.2	0.17	15
Consumer Loan ABS	1.7	0.0	0.0	0.1	0.46	7
SME CLO Non-Core	0.7	-0.6	0.0	0.2	0.07	16
Italian Lease ABS	0.6	0.0	-1.0	-0.5	-0.21	18
US Student Loan ABS	1.5	1.7	0.0	-0.1	0.78	2
Sector	Q1 Fundamentals	Q2 Valuation	Q3 Sentiment	Q4 Technicals	Total Score	Ranking
CMBS						
European CMBS	1.4	1.1	0.0	-0.1	0.61	4
Sector	Q1 Fundamentals	Q2 Valuation	Q3 Sentiment	Q4 Technicals	Total Score	Ranking
CLO						



## Identifying investment opportunities: Micro view

Determine which ABS bonds offer most relative value within the sector

We use a balanced approach to determine our Micro view:



For each ABS bond we assess:

- Fundamentals: Extensive credit risk analysis, collateral analysis and deal documentation
- Valuations: Relative value analysis of bonds within the sector
- Technicals: Call risk/tender upsides in bonds, upgrades/downgrade candidates
- Sentiment: Any possible issues with the originator of the collateral

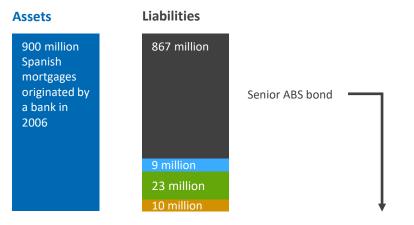
Examples of (Micro) alpha sources for the strategy:

- Anticipate rating migration of ABS bond
- Call / tender upsides / early redemptions
- Prepayment trends, Pro rata vs sequential bond repayments
- Mainstream vs niche originators, club transactions



#### Proprietary systems to assess credit risk of ABS bonds

#### Spanish ABS



#### Impairments on a senior Spanish ABS bond under different scenarios

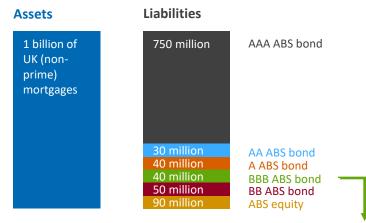
						Hous	e price d	ecline in	Spain (	from cur	rent lev	els)				
		0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%
	0.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	5.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
aults	10.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
au	15.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
def	20.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
B	25.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ğ	30.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
ť	35.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	4%	6%
Ε	40.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	6%	8%	11%
ive	45.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	6%	9%	12%	15%
at	50.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	7%	10%	13%	16%	19%
mulative	55.0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	6%	10%	13%	16%	20%	23%
5	60.0%	0%	0%	0%	0%	0%	0%	0%	1%	5%	9%	13%	16%	20%	24%	27%
	65.0%	0%	0%	0%	0%	0%	0%	0%	3%	7%	11%	15%	19%	23%	27%	31%
	70.0%	0%	0%	0%	0%	0%	0%	0%	5%	9%	14%	18%	22%	27%	31%	36%

Internal rating



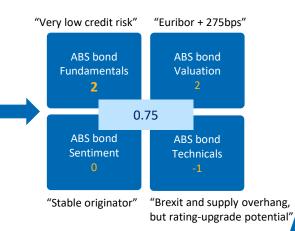
### Identifying investment opportunities: Stress testing

#### **UK ABS**



#### Losses on the BBB-rated bond under many scenarios

		House price decline in the UK (from curent levels)														
		0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
defaults 1 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
a 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ຟ 2	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%
	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	37%
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	39%	57%
	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	37%	56%	74%
94 5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	33%	53%	72%	92%
5	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	26%	46%	67%	88%	100%
Cumula 0 0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16%	38%	59%	82%	100%	100%
3 6	5%	0%	0%	0%	0%	0%	0%	0%	0%	5%	27%	50%	73%	97%	100%	100%
7	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	37%	61%	86%	100%	100%	100%





### Identifying investment opportunities: Universe monitor

**Dutch ABS Monitor** 

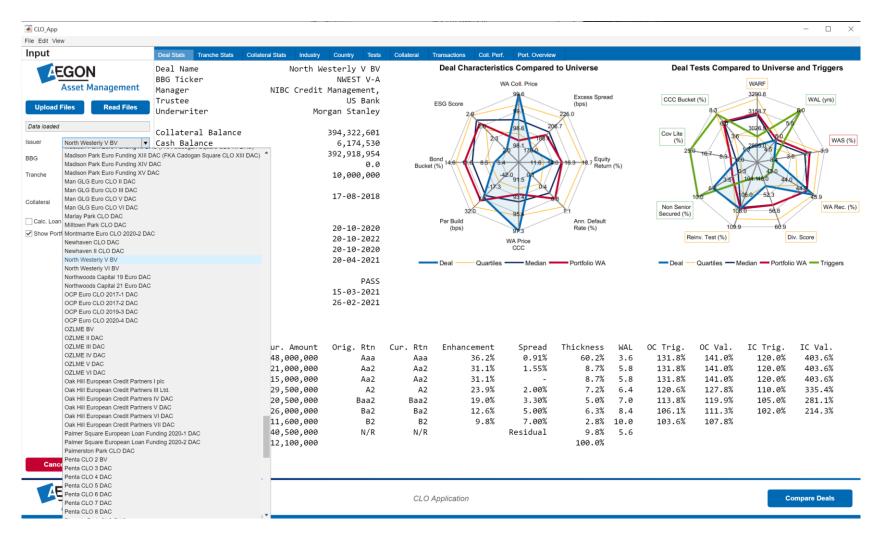




**EGON** 

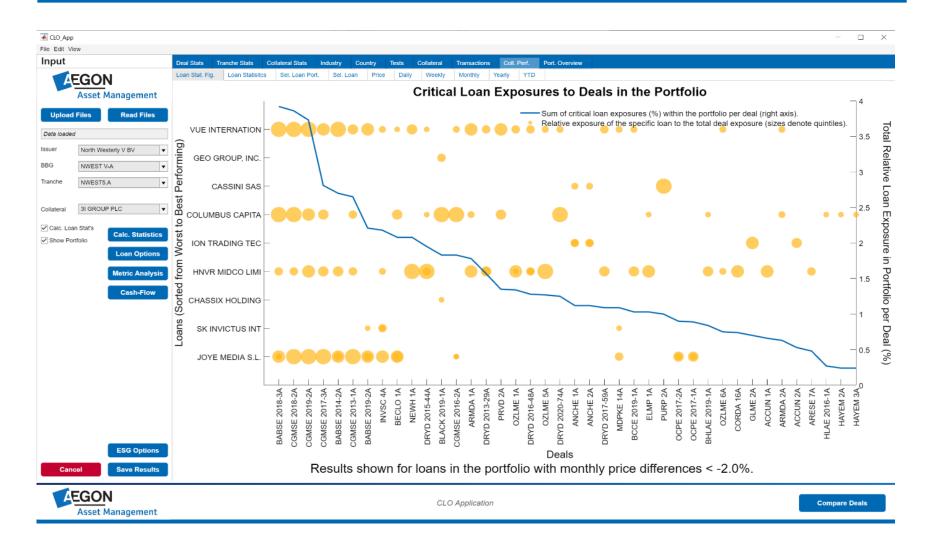
Source: Aegon Asset Management. Illustration: Example Dutch ABS Monitor.

### Identifying investment opportunities: CLO Universe monitor



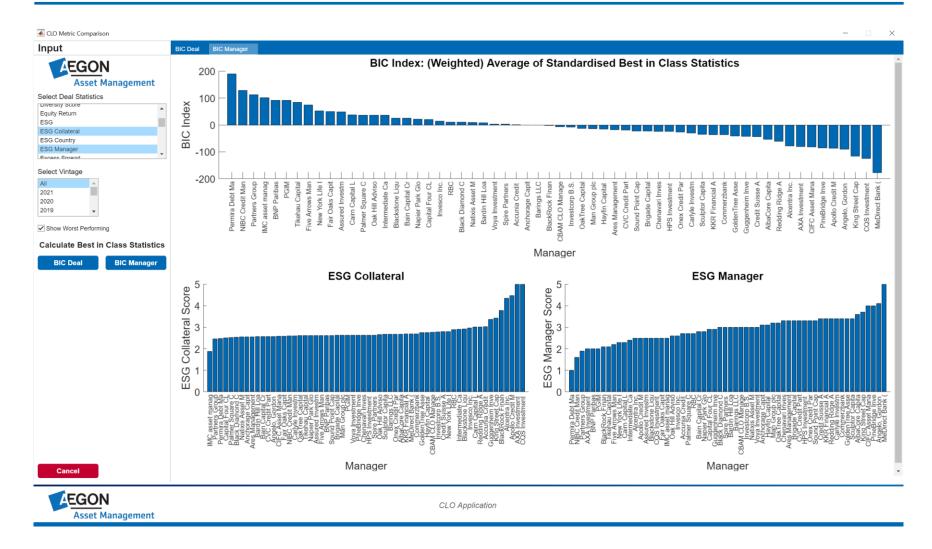


### Identifying investment opportunities: CLO Universe monitor





### Identifying investment opportunities: CLO Universe monitor





# ESG integration and responsible investing



# ESG and RI fully integrated in ABS investment process

ESG assessment collateral	<ul> <li>We assess the ESG risk factors in the ABS collateral pool</li> </ul>
	<ul> <li>We categorize the ESG risk of the collateral on a scale from 1 to 5</li> </ul>
ESG assessment originator	<ul> <li>We have made ABS sector specific questionnaires to assess the ESG risks and policies of the originators</li> </ul>
	<ul> <li>We actively engage with originators that bring an ABS deal to the market</li> </ul>
ESG assessment country	<ul> <li>We assess the ESG risk factors in the country of the collateral</li> </ul>
Exclusion principle	<ul> <li>We do not invest in collateral types that are ESG unfriendly, such as 'pay day loans'</li> </ul>
	✓ We do not invest in originators with very aggressive work-out strategies, like some NPL deals
Green ABS bonds	<ul> <li>We actively invest in ABS bonds backed by 'green' or 'ESG friendly' collateral</li> </ul>
	<ul> <li>We invest in ABS bonds backed by 'green mortgages' and renewable energy receivables and government sponsored student/education loans</li> </ul>
Tear sheets	<ul> <li>We include the results of our ESG analysis in all our tear sheets</li> </ul>
	<ul> <li>We award plus or minus points for the ESG risk category of the collateral and originator</li> </ul>
RI team	<ul> <li>We have a monthly meeting with our RI team to discuss ESG related topics</li> </ul>



# ABS sector-specific ESG assessment

## **Example for RMBS**

Collateral										
RMBS - Collateral ESG Score										
1	>80									
2	60-79									
3	40-59									
4	20-39									
5	<20									

#### 1. Energy efficiency

- 1.1 Percentage of houses with energy efficiency label
- 1.2 Percentage of newly built houses
- 1.3 Percentage of renovated houses with energyefficiency focus

#### 2. Government social support

- 2.1 Government guaranteed mortgages (NL, UK)
- 2.2 Government loan (UK)
- 2.3 Government subsidized (Portugal, France)

#### 3. Affordability

- 3.1 Loan to Income
- 3.2 Debt Service to Income

## Originator

<b>RMBS - Originator ESG Score</b>										
1	>80									
2	60-79									
3	40-59									
4	20-39									
5	<20									

#### 1. Commitment to ESG

- 2.1 Signatory to UNPRI or other RI organization
- 2.2 Reward energy efficient behavior customers
- 2.3 ESG policy

#### 2. Origination Process

- 2.1 Origination channels
- 2.2 Underwriting policy
- 2.3 Collateral valuation

#### 3. Arrears Management

- 3.1 Working together with customer (early and late stage)
- 3.2 Loss mitigation solutions

#### 4. Governance

- 4.1 Business Processes / Corporate Governance
- 4.2 Transaction Structure
- 4.3 Data availability and transparency
- 4.4 Conflicts of interest

## Weight: 40%

## Country

RMBS - Coun	RMBS - Country ESG Score									
1	>80									
2	60-79									
3	40-59									
4	20-39									
5	<20									

#### 1. Environmental

- 1.1 Responsible consumption
- 1.2 Energy
- 1.3 Climate adaptation

#### 2. Social

- 2.1 Freedom and peace
- 2.2 Basic rights and needs
- 2.3 Labor protection

#### 3. Governance

- 3.1 Institutional Strength
- 3.2 Policy

## Weight: 10%



# Weight: 50%

		Storm Green	Storm 2020-1	Cartesian 3	Delft 2019-1
Collateral (50%)	% energy efficient house	1	4	2	5
	% NHG (Government Guaranteed)	1	3	5	5
	Loan To Income	2	3	3	5
	Debt Service To Income	1	2	3	4
	Total Collateral Category	1	3	3	5
Originator (40%)	Origination process	<ul> <li>Strong focus loan affordability</li> <li>Very low exception rate</li> <li>Continuous training of employees and brokers</li> </ul>	<ul> <li>Strong focus on loan affordability</li> <li>Very low exception rate</li> <li>Continuous training of employees and brokers</li> </ul>	<ul> <li>Origination is entirely through broker network; however decision and policy dictated by originator</li> <li>New originator with Itd experience</li> </ul>	<ul> <li>Poor (very loose) underwriting criteria (self certified, credit history) resulting in too high indebtedness borrowers</li> <li>Focus on volume instead of affordability</li> </ul>
	Arrears Management	Very effective with strong focus on working together with borrower - Use of forbearance measures - Case ownership - Assistance offered with household finances - Career support for unemployed	Very effective with strong focus on working together with borrower - Use of forbearance measures - Case ownership - Assistance offered with household finances - Career support for unemployed	Our review was satisfactory for this experienced servicer however working with borrower could be improved: - Case ownership only late stage - No budget coach for borrower	<ul> <li>Arrears management is sound in terms of frequency of borrower contact and household finance assistance.</li> <li>Possibilities for forbearance measures are very limited.</li> <li>Also no case ownership and high employee turnover.</li> </ul>
	Governance of processes	<ul> <li>Bespoke fraud prevention system</li> <li>Independent RM team reporting directly to board</li> </ul>	<ul> <li>Bespoke fraud prevention system</li> <li>Independent RM team reporting directly to board</li> </ul>	<ul> <li>Daily and monthly operational audits of the underwriting process</li> <li>Internal audit framework</li> </ul>	<ul> <li>Arrears management processes are subject to sound risk management and internal control environment.</li> </ul>
	Governance of transaction	<ul> <li>Very low counterparty risk</li> <li>Strong reps and warranties</li> </ul>	<ul> <li>Very low counterparty risk</li> <li>Strong reps and warranties</li> </ul>	<ul> <li>Reps and warranties</li> <li>satisfactory</li> <li>No back up servicer defined</li> </ul>	<ul> <li>Weak reps and warranties: indemnity is limited to €20k per loan.</li> </ul>
	Total Originator Category	1	1	3	4
Country (10%)	Total Country Category	1	1	1	1
Total (100%)	Total ESG Category	1.0	2.0	2.8	4.2

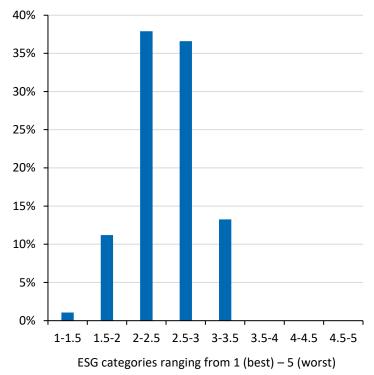


# ESG risk categorization in European ABS strategy

- We categorize the ABS collateral, the ABS originator and the country of collateral on a scale from 1 to 5, to come to an overall ESG risk assessment for ABS bond.
- The majority of our ABS bonds are assigned an ESG risk category between 2 and 3, with (very) low ESG risks.
- Portfolio has an average ESG risk category of 2.5. We estimate that the average ESG risk category of the ABS universe is 3, with ~10% classifying below 3.5.
- ABS bonds with lower ESG risk tend to be more liquid, as the investor base for such bonds grows with the increasing focus on ESG in the investor community.
- We do see reputational risk in ABS bonds with a high (bad) ESG risk category. We avoid investing in such ABS bonds and any bond with a category 4 or 5 assessment is not eligible for investment.

## **Distribution of ESG risk categorizations**

For bonds in the European ABS strategy





# Summary



# Summary

Past performance does not predict future returns

Investment team	<ul> <li>One of the largest dedicated ABS teams in Europe</li> <li>Seasoned and stable investment team</li> </ul>
Investment process	<ul> <li>Multi-angled investment process, combining quantitative and qualitative inputs</li> <li>Proprietary stress-testing and monitoring systems</li> </ul>
ESG/ RI	<ul> <li>ESG and RI fully integrated in ABS investment process</li> </ul>
Track record	<ul> <li>Strong performance record, investing since 2001</li> <li>No defaults ever in the ABS portfolios</li> </ul>
Target yield*	<ul> <li>✓ 5.50% - 6.00% in €</li> <li>✓ Average rating A+ (all bonds are externally rated)</li> </ul>
Risk diversification	<ul> <li>Consumer risk, instead of corporate risk or government risk</li> </ul>

\*Target income is not guaranteed and may be revised in the future, capital is at risk and there is no guarantee that the fund will generate a positive return.



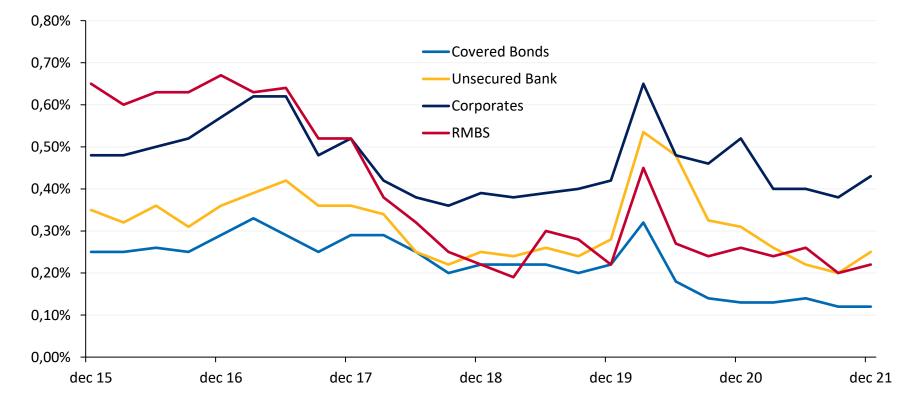
# Appendices



# Liquidity in European ABS

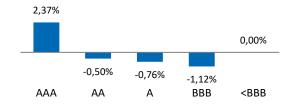


As % of price

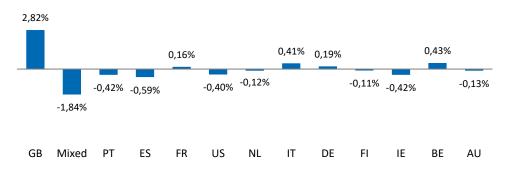




# Active portfolio management

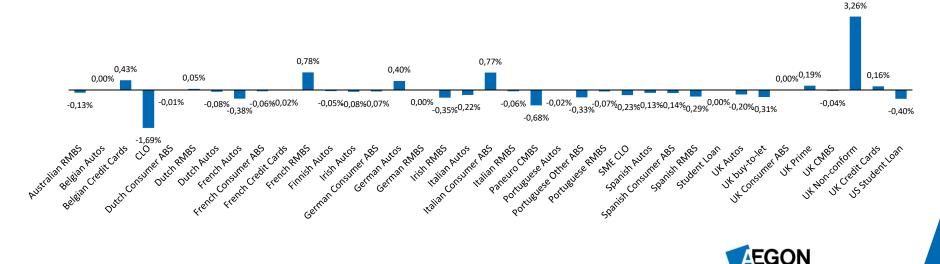


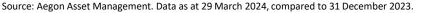
### Change in country distribution



## Change in sector distribution

**Change in rating distribution** 





Asset Management

Eligible Instruments	RMBS / CMBS / ABS / CLO								
Cash Policy	-5% to +5%								
	AAA 10% per issuer (max 100% total)								
	AA 10% per issuer (max 100% total)								
Rating and issuer exposure	A 7.5% per issuer (max 50% total)								
	BBB 5% per issuer (max 25% total)								
	BB or lower <sup>*</sup> 2% per issuer (max 7.5% total)								
Country exposure	30% relative to benchmark**								
Sector exposure	25% relative to benchmark								
Off-benchmark exposure	Max 12.5%, both on country and sector level / CLOs: max 25%								
Duration***	~0.5 year (+/- 0.25 years relative to benchmark)								
Spread duration	2-10 years								
Diversification****	At least 100 different ABS bonds								

Source: Aegon Asset Management

\* We do not seek to invest actively in sub-investment grade bonds. The sub-IG bucket is only used to avoid forced-selling in case of a downgrade.

\*\* Benchmark: Market value-weighted combination of the Barclays Capital Euro ABS Floating Rate Composite Index and the Barclays Capital Euro ABS Fixed Rate Composite Index

\*\*\* We do not take active duration positions. The duration of the benchmark has always been around 0.5 years

\*\*\*\* Diversification is an internal limit. We strive to maintain this level of diversification at all times but it is not a hard restriction.



# Proprietary monitors: UK non-conforming RMBS

**UK NC RMBS MONITOR** 

	pro- rata	switch	90+		90+	90+	Δ	60+	60+	Δ	target reserve	reserve	reserve fund	% of	CE \ Trigger	CPR %	CPR %	Δ		Self Cert.	ю	First Lien	Loss Severity	Loss Severity	Issue
Deal	now?	likely?	trigger		(T)	(T-1)	90+	(T)	(T-1)		fund	fund (T)		target R		(T)	(T-1)	CPR		%	%	%	(T)	(avg)	Date
ALBA 2005-1	NO	YES	22.5	0	7.2	7.0	Û	8.5	8.5	Û	2.56	2.21	1.98	86%	Î YES	0.86	3.78	Û	52%	53%	83%	100%	25.0	23.4	30-11-05
ALBA 2006-1	YES	NO	22.5	$\bigcirc$	12.0	12.8	Û	16.2	16.2	Û	3.34	3.34	3.34	100%	YES	3.74	3.07	Û	13%	70%	78%	100%	33.2	30.9	16-06-06
ALBA 2006-2	YES	NO	17.0	$\bigcirc$	12.1	12.3	Û	15.3	15.0	Û	3.49	3.49	3.49	100%	YES	1.62	2.51	Û	21%	56%	80%	100%	32.0	31.4	14-11-06
ALBA 2007-1	NO	NO	17.0	$\bigcirc$	8.9	8.7	Û	11.1	11.1	Û	9.90	9.90	9.90	100%	NO	3.06	2.12	Û	20%	37%	81%	100%	33.6	34.9	18-06-07
ALBA 2011-1	Never	NO	NO		34.5	34.2	Û	42.2	41.3	Û	36.11	36.11	36.11	100%	N/A	0.46	0.82	Û	9%	47%	85%	100%	32.2	25.6	09-06-11
BLST 2005-1	YES	NO	22.5	$\bigcirc$	9.6	10.7	Û	13.0	15.6	Û	0.86	0.86	0.86	100%	YES	1.54	9.63	Û	0%	67%	38%	100%		10.4	03-08-05
BLST 2006-1	NO	YES	22.5	$\bigcirc$	17.5	18.8	Û	21.4	24.4	Û	1.77	1.60	1.07	90%	Î YES	7.38	2.68	Û	10%	73%	65%	100%	16.6	28.6	24-08-06
BLST 2007-1	NO	YES	22.5	$\bigcirc$	17.5	17.1	Û	22.7	21.9	Û	4.60	4.60	4.60	100%	NO	4.29	7.05	Û	10%	74%	64%	100%		30.9	14-06-07
CLAVS 2006-1	YES	NO	17.0	$\circ$	12.2	12.0	Û	13.4	14.2	Û	2.58	2.58	2.58	100%	YES	6.95	5.51	Û	39%	48%	75%	100%	19.8	16.7	15-06-06
CLAVS 2007-1	YES	YES	17.0	$\bigcirc$	15.7	15.6	Û	17.7	18.6	Û	4.73	4.73	4.73	100%	YES	6.18	5.61	Û	45%	37%	72%	100%	8.4	19.6	30-05-07
EUMF 2008-1X	NO	NO	25.0	$\circ$	9.1	8.6	Û	11.5	10.7	Û	1.50	0.37	0.79	25%	D NO	5.62	5.20	Û	13%	49%	64%	100%	26.1	26.7	18-03-08
EHMU 2007-1	Never	NO	17.0	$\bigcirc$	14.4	14.1	Û	16.0	15.6	Û	6.30	6.30	6.19	100%	N/A	2.66	3.18	Û	56%	88%	92%	100%	40.3	37.0	21-03-07
EHMU 2007-2	Never	NO	17.0	$\bigcirc$	22.9	22.1	Û	26.0	25.5	Û	9.00	7.19	6.04	80%	Î N/A	2.21	2.54	Û	30%	86%	90%	100%	38.4	36.1	23-08-07
EMAST 2007-1V	NO	NO	20.0	$\bigcirc$	17.7	18.9	Û	22.6	23.0	Û	3.72	2.15	1.77	58%	Î NO	5.46	6.77	Û	11%	78%	81%	100%	23.8	24.7	18-06-07
ESAIL 2006-1X	NO	NO	22.5	$\bigcirc$	24.3	24.7	Û	29.2	29.1	Û	3.68	3.68	3.68	100%	YES	7.11	6.29	Û	6%	73%	50%	95%	13.7	25.5	30-05-06
ESAIL 2006-2X	NO	NO	22.5	0	23.6	23.8	Û	28.0	28.1	Û	0.62	0.62	0.62	100%	YES	6.50	6.44	Û	11%	48%	61%	100%	22.8	26.6	11-10-06
ESAIL 2006-3X	NO	NO	22.5	0	31.4	31.7	Û	37.5	39.1	Û	2.55	2.07	1.40	81%	Î YES	7.73	8.01	Û	2%	77%	52%	87%	41.1	29.7	09-11-06
ESAIL 2006-4X	YES	NO	20.0	$\bigcirc$	14.7	14.6	Û	18.2	18.2	Û	3.73	3.73	3.73	100%	YES	6.59	5.19	Û	20%	66%	60%	100%	24.0	25.9	27-11-06
ESAIL 2007-1X	Never	NO	20.0	$\bigcirc$	30.1	30.0	Û	35.6	35.8	Û	4.55	4.10	3.01	90%	Î N/A	5.12	6.28	Û	3%	60%	60%	89%	30.5	32.4	28-02-07
ESAIL 2007-2X	Never	NO	22.5	$\bigcirc$	15.1	14.9	Û	18.1	18.0	Û	2.34	2.34	2.34	100%	N/A	5.31	5.67	Û	19%	50%	65%	100%	24.3	27.4	29-03-07
ESAIL 2007-3X	Never	NO	22.5	$\circ$	19.1	18.8	Û	23.8	23.4	Û	2.60	2.10	2.05	81%	Î N/A	5.58	5.40	Û	7%	61%	63%	92%	32.3	32.9	16-07-07
ESAIL 2007-4X	Never	NO	22.5	$\bigcirc$	18.9	18.9	Û	23.2	22.9	Û	3.29	3.29	3.29	100%	N/A	5.32	5.07	Û	8%	55%	62%	100%	32.0	34.9	16-08-07
ESAIL 2007-5X	Never	NO	20.0	$\bigcirc$	12.3	12.4	Û	15.5	15.7	Û	16.10	15.05	15.49	93%	N/A	6.28	6.15	Û	13%	45%	63%	100%	26.8	27.0	19-11-07
ESAIL 2007-6NCX	Never	NO	22.5	0	26.1	25.9	Û	31.8	32.3	Û	9.31	8.92	9.31	96%	N/A	8.01	5.88	Û	6%	55%	1%	100%	27.5	25.5	28-11-07
ROOF 1	YES	NO	22.5	$\circ$	14.4	14.2	Û	17.5	16.3	Û	5.25	2.88	2.78	55%	Î YES	9.64	13.19	Û	1%	76%	80%	100%	98.1	13.8	24-02-05
ROOF 2	NO	NO	22.5	$\bigcirc$	19.0	18.9	Û	25.2	24.2	Û	4.44	2.42	2.42	54%	VES	5.66	7.53	Û	2%	72%	73%	100%	62.7	18.3	27-09-05
GHM 2006-1	Never	NO	20.0	$\bigcirc$	6.6	6.9	Û	8.9	9.3	Û	5.34	5.34	5.34	100%	N/A	6.27	4.12	Û	40%	51%	82%	100%	26.0	24.8	12-12-06
GHM 2007-1	Never	NO	20.0	$\bigcirc$	5.2	5.5	Û	7.2	7.6	Û	13.19	13.19	13.19	100%	N/A	3.23	5.35	Û	40%	60%	83%	100%	30.2	29.5	14-03-07
GHM 2007-2X	Never	NO	20.0	$\circ$	6.2	7.1	Û	8.3	9.1	Û	9.35	9.35	9.35	100%	N/A	5.59	4.38	Û	32%	55%	79%	100%	31.3	29.2	28-06-07
KMS 2007-1X	NO	NO	22.5	0	29.5	30.0	Û	34.1	34.4	Û	12.00	12.00	12.00	100%	YES	11.10	8.10	Û	4%	70%	55%	100%	37.1	37.5	28-03-07
LMS 1	NO	NO	20.0	$\bigcirc$	27.9	28.1	Û	32.3	32.4	Û	3.00	2.77	2.61	92%	Î YES	10.57	6.93	Û	5%	82%	83%	100%	32.3	31.5	26-07-06
LMS 2	NO	NO	20.0	0	24.8	24.7	Û	27.8	28.7	Û	2.98	2.98	2.98	100%	YES	3.94	4.64	Û	25%	60%	86%	100%	45.9	37.2	13-03-07
LGATE 2006-1X	NO	YES	15.0	$\circ$	4.9	5.2	Û	5.8	6.2	Û	1.50	0.74	0.42	50%	Î YES	3.04	4.37	Û	30%	58%	70%	100%	27.9	25.1	23-11-06
LGATE 2007-1	NO	NO	15.0	$\bigcirc$	4.3	4.6	Û	5.6	5.7	Û	1.66	1.66	1.66	100%	NO	2.96	2.79	Û	54%	43%	85%	100%	34.0	31.4	22-06-07

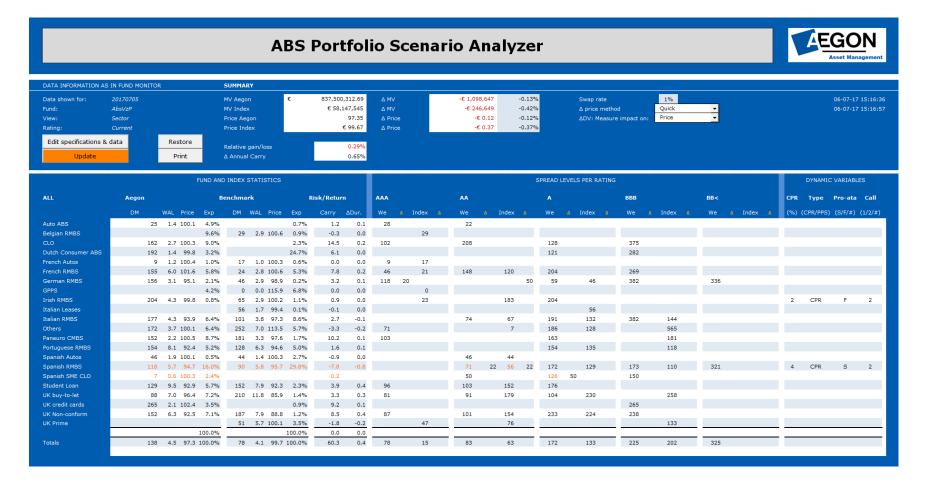


EGON

ASSET MANAGEMEN

# Portfolio construction: System to analyze MTM volatility

System allows analyzing scenarios, including spread widening, prepayment scenarios and non-call risk





# Portfolio monitoring: Tracking ABS collateral performance

Detailed look-through transparency via real-time performance data of underlying ABS collateral

Proactive monitoring on various levels, including (real-time) performance of the ABS collateral pools

## **ABS Fund Collateral Performance**



Static data				Collateral performance						Reserv	e Fund		Credit	Enhan	cement	Rating				Watchlist	Prepay	ment				
ISIN	Description			30+ (T)	60+ (T)	90+ (T)	90+ (-1Q)	90+ (-1Y)	delta 90 (QQ)	+ delta 90+ (YY)	Current (mio)	Target (mio)	Current / Target	Original CE	Current CE	90+ delq * 50% / Current CE	Fitch	Moody's	S&P	Com- bined		CPR(T)	CPR (-1Q)	CPR (-IY)	delta CPR (QQ)	delta CPR (YY)
RMBS																										
XS0271944604	ESAIL 2006-3X A3A	UK	UK Non-conform	60.1	53.9	48.3	48.0	46.5	Û	Û	2.6	2.6	1.00	15.2	68.6	0.35	AAA	Aa2	A-	AA		7.5	6.6	9.9	Û	Û
XS0274201507	ESAIL 2006-4X B1A	UK	UK Non-conform	36.4	30.9	28.0	28.4	26.4	Û	Û	3.7	3.7	1.00	6.5	21.4	0.65	A+		A-	Α		6.6	5.4	8.7	Û	Û
XS0288627507	GHM 2007-1 A2B	UK	UK Non-conform	8.0	5.6	4.0	4.1	3.3	Û	Û	13.2	13.2	1.00	25.1	46.7	0.04	AAA	Aa3	Α	AA		8.1	9.1	11.0	Û	Û
XS0274965556	MPS 4X A1B	UK	UK Non-conform	28.1	20.9	16.2	16.2	17.8	Û	Û	12.6	12.6	1.00	19.4	67.0	0.12	AAA/*-	Aa2	A-	AA		5.7	7.6	7.3	Û	Û
XS0272626788	NGATE 2006-3X A3B	UK	UK Non-conform	22.9	18.9	16.2	17.9	19.7	Û	Û	8.5	8.5	1.00	11.2	44.5	0.18	AAA	Aaa	A-	AAA		6.9	6.0	6.2	Û	Û
XS0272629295	NGATE 2006-3X BB	UK	UK Non-conform	22.9	18.9	16.2	17.9	19.7	Û	Û	8.5	8.5	1.00	2.6	22.1	0.36	Α	Aa2	BBB+	Α		6.9	6.0	6.2	Û	Û
XS0329656101	NGATE 2007-3X A2B	UK	UK Non-conform	14.6	10.6	8.5	9.2	9.2	Û	Û	23.8	23.8	1.00	34.0	53.5	0.08	AAA	Aaa	A-	AAA		8.4	6.5	7.0	Û	Û
XS0300468385	RLOC 2007-1X A3A	UK	UK Non-conform	8.7	5.9	4.3	5.0	5.3	Û	Û	12.2	12.2	1.00	23.3	41.5	0.05	AAA	Aa2	BBB+	AA		7.8	7.8	9.7	Û	Û
XS0200802568	RMAC 2004-NS3X A2C	UK	UK Non-conform	12.7	7.9	6.8	7.4	7.6	Û	Û	3.1	3.1	1.00	-15.4	38.2	0.09	AAA/*-	Aa2	A-	AA		6.1	3.8	8.2	Û	Û
XS0230220872	RMAC 2005-NS3X A2C	UK	UK Non-conform	11.9	8.5	6.8	5.9	5.5	Û	Û	5.0	5.0	1.00	11.0	37.0	0.09	AAA	Aa2	A-	AA		9.2	3.1	8.4	Û	Û
ES0305177000	SRFFT 2016-1 A	ES	Spanish RMBS	1.3	0.5	0.0					15.9	15.9	1.00	37.0	37.7	0.00		Aa2		AA		2.1				
ES0338448006	TDAC 1 A	SP	Spanish RMBS	4.5	4.2	4.0	4.0	3.7	Û	Û	10.5	10.5	1.00	3.7	37.4	0.05	AA+	Aa2		AA		3.2	4.4	2.9	Û	Û
ES0338449012	TDAC 2 B	SP	Spanish RMBS	5.6	5.5	5.4	5.4	4.7	Û	Û	8.6	8.6	1.00	0.8	6.4	0.42	Α	Aa3		Α		2.2	2.8	1.8	Û	Û
ES0377990009	TDAC 3 A	SP	Spanish RMBS	1.5	0.8	0.5	5.5	4.8	Û	Û	9.0	9.0	1.00	3.2	31.0	0.01	AA+	Aa2		AA		3.1	2.8	3.5	Û	Û
ES0377991007	TDAC 4 A	SP	Spanish RMBS	1.3	0.6	0.3	6.1	5.8	Û	Û	20.0	20.0	1.00	3.4	19.2	0.01	AA-	Aa2		AA		2.6	1.8	2.6	Û	Û
ES0377994019	TDAC 7 A2	SP	Spanish RMBS	1.9	0.9	0.5	9.6	9.7	Û,	Û	6.4	21.9	0.29	5.7	17.8	0.01	BBB-	Aa2	AA+	AA		1.9	2.2	3.2	Û	Û
ES0338147012	UCI 12 B	SP	Spanish RMBS	5.7	4.8	4.3	4.4	4.9	Û	Û	10.4	10.4	1.00	3.8	13.2	0.16			B+	в	Watch	2.2	6.7	6.8	Û	Û
XS0206334095	AZOR 1 A	PT	Portuguese RMBS	7.3	7.0	6.6	7.5	8.2	Û	Û	4.6	4.9	0.94	98.2	86.5	0.04	Α	A1	A+	Α		2.9	3.0	2.7	Û	Û
XS0206334335	AZOR 1 B	PT	Portuguese RMBS	7.3	7.0	6.6	7.5	8.2	Û	Û	4.6	4.9	0.94	91.4	36.1	0.09	А	A1	BBB	А		2.8	3.1	3.3	Û	Û
XS0159068807	LUSI 1 A	PT	Portuguese RMBS	3.6	2.6	2.1	1.6	2.1	Û	Û	10.0	10.0	1.00	54.8	44.3	0.02	A+	A1	A+	Α		3.2	3.0	2.9	Û	Û
XS0178545421	LUSI 2 A	PT	Portuguese RMBS	3.9	3.1	2.8	2.5	2.7	Û	Û	9.0	9.0	1.00	54.5	40.2	0.03	A+	A1	A-	А		4.1	3.4	4.0	Û	Û
XS0206050147	LUSI 3 A	PT	Portuguese RMBS	11.2	10.5	10.1	10.0	9.5	Û	Û	5.9	5.9	1.00	5.5	9.8	0.51	A-	A2	A-	Α		3.0	4.1	2.9	Û	Û
XS0177944690	MAGEL 2 A	PT	Portuguese RMBS	1.5	1.1	1.0	0.9	1.0	Û	Û	9.0	9.0	1.00	7.9	60.0	0.01	A+	A1	A+	А		4.5	0.1	4.2	Û	Û
XS0222684655	MAGEL 3 A	PT	Portuguese RMBS	1.2	0.9	0.8	0.7	0.5	Û	Û	9.0	9.0	1.00	6.4	9.5	0.04		A3	A-	А		3.9	4.7	2.7	Û	Û
XS0260784318	MAGEL 4 A	PT	Portuguese RMBS	1.1	0.8	0.5	0.4	0.2	Û	Û	9.0	9.0	1.00	6.4	9.4	0.03		Baa1	A-	BBB		3.8	3.9	3.6	Û	Û
IT0003966477	ASTIF 1 A	п	Italian RMBS	2.7	1.0	0.8	0.3	1.3	Û	Û	6.0	6.0	1.00	7.6	76.2	0.01		Aa2	AA-	AA		3.6	3.2	3.4	Û	Û
IT0004083025	BPM 2 A2	п	Italian RMBS	4.2	2.3	1.9	2.7	3.1	Û	Û	10.1	10.1	1.00	5.0	30.5	0.03	AA	Aa2	AA-	AA		0.1	2.6	1.9	Û	Û
IT0004215320	BPMO 2007-1 A2	п	Italian RMBS	14.6	14.3	13.9	13.4	12.1	Û	Û	15.9	17.4	0.92	6.1	42.4	0.16	AA	Aa2	A+	AA		3.2	1.7	2.8	Û	Ū.
IT0004224116	MECEN 2 A	п	Italian RMBS	2.4	1.4	1.1	1.0	1.1	Û	Û	8.9	8.9	1.00	10.1	83.0	0.01	AA	Aa2		AA		2.8	2.6	2.3	Û	Û
IT0004224124	MECEN 2 B	п	Italian RMBS	2.4	1.4	1.1	1.0	1.1	Û	Û	8.9	8.9	1.00	8.0	60.3	0.01	AA	Aa2		AA		3.2	1.7	2.6	Û	Û
FR0013221603	SAPPO 2016-3 C	FR	French RMBS	2.1	1.3	0.8	0.8		⇔		17.8	17.8	1.00	5.7	6.0	0.07			А	A		17.8	23.2	16.8	Ū.	Û
				7.0	5.5	4.6	5.2	5.1	Û	Û			0.99	12.3	32.2	0.08						6.7	6.7	9.0	Û	Û



# **Rating agencies**

## Example for NL mortgages (NL RMBS)

### Base Frequency of Foreclosure Matrix ('Bsf' Scenario)

	DTI (%)													
OLTMV <sup>a</sup> (%)	Class 1 (<20)	Class 2 (>=20 and <30)	Class 3 (>=30 and <40)	Class 4 (>=40 and <50)	Class 5 (>=50)									
<40	0.33	0.46	0.59	0.86	1.16									
>=40	0.49	0.68	0.88	1.28	1.73									
>=50	0.64	0.89	1.15	1.65	2.24									
>=60	0.84	1.16	1.49	2.16	2.92									
>=70	1.04	1.43	1.85	2.68	3.60									
>=75	1.16	1.63	2.10	3.02	4.07									
>=80	1.36	1.89	2.42	3.49	4.70									
>=85	1.54	2.13	2.74	3.96	5.31									
>=90	1.84	2.54	3.25	4.68	6.29									
>=95	2.24	3.12	3.98	5.72	7.64									
>=100	2.81	3.88	4.97	7.10	9.46									
>=105	3.45	4.73	5.97	8.41	11.03									
>=110	4.13	5.61	7.01	9.73	12.55									
>=115					Case-by-case									

### Scenario Multipliers of 'Bsf' Foreclosure Frequency Matrix

AAAsf AAsf Asf	3.7
AAsf	3.0
Asf	2.4
BBBsf	1.7
BBBsf BBsf	1.1
Bsf	1.0

Source: Fitch

### MVD's by Dutch Regions (%)

-						
Region (%)	AAAsf	AAsf	Asf	BBBsf	BBsf	Bsf
Drenthe	42.7	40.0	37.2	34.5	31.8	29.1
Flevoland	43.2	40.5	37.8	35.1	32.4	29.1
Friesland	43.5	40.7	38.0	35.2	32.5	29.7
Gelderland	42.7	40.0	37.2	34.5	31.8	29.7
Groningen	43.5	40.7	38.0	35.2	32.5	29.1
Limburg	43.5	40.7	38.0	35.2	32.5	29.7
Noord-Brabant	42.7	40.0	37.2	34.5	31.8	29.7
Noord-Holland	43.2	40.5	37.8	35.1	32.4	29.1
Overijssel	42.7	40.0	37.2	34.5	31.8	29.7
Utrecht	43.2	40.5	37.8	35.1	32.4	29.1
Zeeland	43.5	40.7	38.0	35.2	32.5	29.7
Zuid-Holland	43.2	40.5	37.8	35.1	32.4	29.7

Source: Fitch, figures as of March 2012

## 'BB' rating agency stress scenario

- Assumed number of people that default on mortgage: 5.97%\*1.1=6.5%
- Assumed house price decline: 32.4%

The 'BB' rated (Dutch) ABS bond needs to be able to withstand the following stress:

- 5.97\*1.1 = 6.5% defaults, combined with
- **32.4%** house price decline

## 'AAA' rating agency stress scenario

- Assumed number of people that default on mortgage: 5.97%\*3.7=22.1%
- Assumed house price decline: 43.2%

The 'AAA' rated (Dutch) ABS bond needs to be able to withstand the following stress:

- 5.97\*3.7= **22.1%** defaults, combined with
- 43.2% house price decline



# **Risk management**

Integrated 'three lines of defense' framework for conscious risk-return controls

Structured reviewing and monitoring processes built around:

- Independent oversight Separate management, reporting and escalation lines
- **Pre- and post-trade compliance** Integrated in our decision-making and trading systems
- Adherence to portfolio limits Guidelines and specific investment restrictions define investment leeway
- Scenario analysis and stress testing of the portfolio Monthly autonomous analysis of base, historical and hypothetical scenarios

Established monitoring and risk management systems						
Risk Vision	Bloomberg PORT	thinkFolio				
Calculation and visualization engine	Multi-factor risk modelling	Trading platform with pre-trade compliance				



# Track record: European ABS Insured Composite

	1 Year	3 Years	5 Years	10 Years	Dec 2004
European ABS Composite*	4.63%	3.09%	6.57%	6.83%	5.75%
Barclays ABS Benchmark**	1.86%	1.39%	3.40%	3.01%	2.83%
Relative performance	2.77%	1.70%	3.17%	3.82%	2.92%
Tracking error (ex-post)		1.33%	1.67%	2.41%	2.15%
Information ratio		1.28	1.90	1.58	1.36

Calendar year gross returns					
	2017	2016	2015	2014	2013
European ABS Composite*	4.63%	4.03%	0.66%	12.83%	11.20%
Barclays ABS Benchmark**	1.86%	2.58%	-0.25%	6.66%	6.33%
Relative performance	2.77%	1.44%	0.90%	6.18%	4.86%

Source: Aegon Asset Management. All figures presented gross of fees and in €. All data as at end of December 2017. The track record of the Asset Backed Securities Insured Composite is intended for illustrative purposes only. Only professional investors within the meaning of the Dutch Financial Supervision Act ("Wft") who belong to the fiscal entity of Aegon N.V. can participate in the collective investment vehicle underlying this composite. Past performance is not indicative of future results.

\* Figures for Asset Backed Securities Insured composite; creation date: December 1, 2004.

Annualized gross returns

\*\* Market value-weighted combination of the Barclays Capital Euro ABS Fixed Rate Composite Index (customized) and the Barclays Capital Euro ABS Floating Rate Composite Index (customized).



## Public ABS / Structured Finance

Frank Meijer, PhD, is global head of alternative fixed income & structured finance. In this role, he is responsible for Aegon AM's private debt, direct lending and structured finance activities globally. He is also a permanent guest lecturer at Vrije Universiteit Amsterdam. Prior to his current role, Frank led the European investment team focusing on investments in European ABS/ structured finance and all investments in private debt and direct lending, with investment strategies across the whole rating spectrum. Prior to joining the firm, he worked at ABN AMRO in the credit risk modelling department. Frank joined the industry and the firm in 2005. He holds an MSc in physics, cum laude, from University of Groningen and a PhD in physics from Delft University of Technology.

Egbert Bronsema is a portfolio manager in the European ABS team. Prior to joining the firm, he worked as a portfolio manager and analyst in the structured finance team at IMC Asset Management for eleven years. Egbert has been in the industry since 2005 and joined the firm in 2016. He holds an MSc in business economics and quantitative economics from Maastricht University.

Noor Diepman is a portfolio manager in the European ABS team. She is also a quantitative analyst for the alternative fixed income & structured finance department. Noor joined the industry and the firm in 2023. She holds a Master's degree in econometrics and management science from Erasmus University Rotterdam and is a CFA level I candidate.

Bálint Vágvölgyi, PhD, CFA, is a portfolio manager in the European ABS team. Prior to joining the firm, he worked for NIBC Bank as an ABS risk manager and subsequently as a trader. Bálint has been in the industry since 2009 and joined the firm in 2012. He holds an MSc in mathematics, cum laude, and an MSc in quantitative finance, as well as a PhD in mathematics from Vrije Universiteit Amsterdam. He is also a CFA charterholder.

Ewout van der Meer, CFA, is a portfolio manager in the European ABS team. Prior to joining the firm, he worked in the structuring team of NIBC Bank for five years. In that role, he worked on securitizations and covered bond programs backed by mortgage receivables. He also executed transactions backed by leases and other receivables. Ewout has been in the industry since 2009 and joined the firm in 2014. He holds an MSc in financial economics, cum laude, from Erasmus University Rotterdam and is a CFA charterholder.

Jim Marinus, CFA, is a portfolio manager in the European ABS team. He is also head of the quantitative analysts for alternative fixed income & structured finance and in this role is responsible for the development and maintenance of all proprietary investment models and tooling within the alternative fixed income & structured finance domain. Jim joined the industry and the firm in 2017. He holds an MSc in quantitative risk management from Vrije Universiteit Amsterdam and is a CFA charterholder.

Maarten Jan Hoefnagel, CFA, is a portfolio manager in the European ABS team. Prior to joining the firm, he worked as a European ABS analyst at NIBC Bank for two years. Maarten Jan has been in the industry since 2006 and joined the firm in 2008. He holds an MSc in physics from Delft University of Technology and is a CFA charterholder.

Stijn Stortelder, CFA, is a portfolio manager in the alternative fixed income & structured finance department where he splits his time between European ABS and Dutch mortgages. Prior to his current role, he worked in Aegon AM NL's portfolio risk management & control department for two years. Stijn joined the industry and the firm in 2010, he became a portfolio manager in 2012. He holds an MSc in finance from Vrije Universiteit Amsterdam and is a CFA charterholder.

Catherine Hu is a portfolio manager in the European ABS team. She is also a quantitative analyst for the alternative fixed income & structured finance department. Catherine joined the industry and the firm in 2022. She holds an MSc in artificial intelligence from University of Amsterdam and is a CFA level I candidate.



# Biographies key investment professionals

## Public ABS / Structured Finance (continued)

Chad Diefenderfer, CFA, is a senior investment manager in the US public structured team focusing on CLOs and ABS as well as analytical support across ABS, RMBS and CMBS. Prior to his current role, Chad was a senior risk analyst in the portfolio risk management and control team where he was responsible for conducting routine and ad-hoc risk analyses across various investment platform. He also held roles in the operations groups. Prior to joining the firm, Chad served as a portfolio strategist at Armstrong Wealth Management Group. Before that, he was a financial analyst at Wabtec Railway Electronics and prior to that, a policy analyst at Transamerica, an affiliated company. Chad has been in the industry since 2009 and started with the firm and its affiliates in 2011. He received his BS in political science from the University of Iowa. Chad is a CFA® charterholder.

Jim Elliott is a senior investment manager in the US public structured team focusing on RMBS and CMBS. Prior to joining the firm, Jim was a collateral credit team lead at the Federal Home Loan Bank of Chicago where he managed security and whole loan risk. Prior to that, he was a senior mortgage analyst at PPM America where he focused on researching and managing RMBS for the internal and external funds and was also an assistant portfolio manager on a low duration bond fund. He has been in the industry since 2002 and started with the firm in 2021. Jim received his BS in general business management from Purdue University and his MBA from The University of Chicago Booth School of Business.

Ryan Baue, CFA, CAIA, is an investment manager in the US public structured finance team focusing on ABS and CLOs. Prior to his current role, Ryan was employed by the University of Iowa Center for Advancement as a senior investment analyst where he performed manager research and due diligence on potential fund managers. Prior to that he worked at Northern Trust Asset Management as a fixed income research analyst and Northern Trust Corporation as a global funds services analyst. Ryan has been in the industry since 2014 and started with the firm in 2019. He received his BBA in finance and his MBA from the University of Iowa. Ryan is a CFA® charterholder and a CAIA charterholder.

Tom Manthe, CFA, is a senior investment manager responsible for providing CMBS and RMBS research, underwriting, and analytical support. He rejoined the team after having served on the consumer credit research team for four years. As a senior analyst on the consumer team, he was responsible for global credit analysis of investment grade and high yield securities within his coverage universe. He also worked for Aegon Real Assets US, an affiliate, in the applied research group. Prior to joining the firm, Tom was an actuarial analyst at William M. Mercer within the retirement consulting practice. He has been in the industry since 2002 and started with the firm and its affiliates in 2002. Tom received his BS in mathematics from the University of Wisconsin in Milwaukee and his MBA from the University of Wisconsin in Madison. He is a CFA® charterholder.

Tyler Knight, CFA, is head of US public structured finance responsible for the overall strategy and portfolio management of structured finance-related strategies as well as leading a team of US structured finance investment managers. He is also a portfolio manager for multi-sector strategies. Prior to his current role, he structured CMBS transactions and supported CMBS trading on the Bear Stearns trading desk. Tyler also supported transaction closing deal teams in the Structured Finance Advisory Services group at Ernst and Young LLP. He has been in the industry since 2004 and started with the firm in 2008. Tyler received his BBA in finance from the University of Iowa. He is a CFA® charterholder.

Glen Kneeland is a senior investment manager in the US public structured team focusing on CMBS and RMBS and is the lead structured products trader responsible for all structured trading activity executed within the various fixed income investment management strategies. Prior to his current role, he had portfolio management responsibilities on various multi-sector strategies, including short duration. Prior to that, Glen held analyst and trading roles in the firm's portfolio management group and fixed income investment groups. He has been in the industry since and started with the firm in 2003. Glen received his BA in finance from Loras College and his MBA in finance from the University of Iowa.



## **Private ABS**

Bas Kragten is head of private ABS & infrastructure. In this role, he leads the team responsible for fund finance & renewable infrastructure debt. As part of the combination between Aegon NL and a.s.r., Bas joined Aegon AM from a.s.r. where he was head of structured investments. Prior to that, he worked at Actiam for more than 10 years, and spent the majority of his time there as co-head of fixed income. Prior still, he was head of ABS at ING Investment Management and held various positions in structured finance/alternative fixed income portfolio management at NIBC, ABP and Rabobank. He has been in the industry since 1995 and joined the firm in 2023 as part of the merger. He holds an MSc in macroeconomics from Tilburg University.

Jules Koekkoek is an investment manager in the fund finance & renewable infrastructure debt team. As part of the combination between Aegon NL and a.s.r., Jules joined Aegon AM from a.s.r. where he was an investment manager in the structured investments team. Prior to that, he worked at Actiam as a portfolio manager structured credit. Prior still, he held various positions in fixed income at Citi, UBS, Nomura/Lehman Brothers and Goldman Sachs. He has been in the industry since 2006 and joined the firm in 2023 as part of the merger. He holds a Master's degree in financial economics from Erasmus University Rotterdam and a Master's degree in systems engineering, policy analysis and management from Delft University of Technology.

Vincent Kroes is an investment manager in the fund finance & renewable infrastructure debt team. As part of the combination between Aegon NL and a.s.r, Vincent joined Aegon AM from a.s.r. where he was an investment manager in the structured investments team. Prior to that, he worked at Actiam as a portfolio manager structured credit. Prior still, he worked at KPMG for 11 years as a consultant in the structured finance team. He has been in the industry since 2006 and joined the firm in 2023 as part of the merger. He holds an MSc in finance from University of California and an MSc in business administration from Radboud University.

Remco van Amelsfoort, CFA, is an investment manager in the fund finance & renewable infrastructure debt team. As part of the combination between Aegon NL and a.s.r., Remco joined Aegon AM from a.s.r. where he was an investment manager in the structured investments team. Prior to that, he worked at Actiam for seven years, first as a portfolio manager rates and later as a portfolio manager structured credit. He started his career as quantitative finance trainee at SNS REAAL. He has been in the industry since 2011 and joined the firm in 2023 as part of the merger. He holds an MSc in econometrics from Tilburg University. He is a CFA charterholder and completed training as Financial Risk Manager (FRM).

Philip van der Meijden is an investment manager in the alternative fixed income & structured finance department where he splits his time between fund finance & renewable infrastructure debt, and Dutch mortgages. Prior to joining the firm, Philip was a portfolio manager at Arrow Global for three years, where he focused on optimizing work-out strategies for non-performing loans. Prior to that, he worked as an associate in the credit solution sales team of Credit Suisse in London for four years, focusing on (securitized) residential mortgage and consumer risk, corporate financing and risk sharing transactions. Philip has been in the industry since 2013 and joined the firm in 2020. He holds an MSc in econometrics from Erasmus University Rotterdam.

Jim Baskin, CFA, CPA, is head of US private structured finance responsible for expanding the firm's global private structured finance capabilities. He is also a portfolio manager for US Structured Finance and US Securities Opportunities strategies. Prior to his current role, Jim was head of US structured research and has spent the last 26 years investing in private ABS markets and complex esoteric ABS structured products. He first joined the private placements group specializing in asset-backed securities (ABS). Since then, he assumed increased responsibility in sourcing, analysing, executing, and managing structured products in public and private markets. Prior to his current role, he was employed by the Federal Deposit Insurance Corporation where he served as a commission bank examiner in the safety and soundness division. Jim has been in the industry since 1990 and started with the firm in 1996. He received his BS in finance from the University of Tennessee. Jim has earned the right to use the Certified Public Accountant designation and is a CFA® charterholder.

Greg Podhajsky, CFA, is a senior investment manager responsible for supporting the efforts to expand the global private structured finance capabilities and providing private ABS research, underwriting, and analytical research. Prior to his current role, he provided public ABS research, underwriting and analytical support to the US public structured research team. Before joining the firm, Greg was a senior credit analyst in the commercial loan division at Firstar Bank responsible for determining the creditworthiness of the borrower as well as training and managing the workflow of a six person credit analyst department. He has been in the industry since 1991 and started with the firm in 1995. Greg received his BBA in business and his MBA from the University of Iowa. He is a CFA® charterholder.

Tara Bulman is a lead investment analyst supporting the US private placements and US private structured finance teams responsible for all areas of private asset administration, funding and settlement solutions, special situations, and oversight. Prior to her current role, she held various roles within the firm's operations and public fixed income trading assistant teams. Most recently she was as senior client service manager within the US client service team. Tara has been in the industry and started with the firm in 1990.



# European Asset Backed Securities Composite

## GIPS<sup>®</sup> Composite Report – as of December 31, 2023

Composite assets				Annual performance results					
Year end	Total Firm assets (millions)	Composite assets (millions)	Number of accounts	Composite gross of fees %	Composite net of fees %	Benchmark %	Composite dispersion	Composite 3-Yr St Dev %	Benchmark 3-Yr St Dev %
2023	56,588	5,373.4	Five or Fewer	8.17%	7.85%	4.53%	N/A	2.15%	0.84%
2022	53,249	4,348.4	Five or Fewer	-3.15%	-3.44%	-1.31%	N/A	3.29%	1.62%
2021	67,124	6,476.9	Five or Fewer	1.54%	1.24%	0.46%	N/A	2.91%	1.59%
2020	58,151	3,349.5	Five or Fewer	0.56%	0.26%	0.09%	N/A	2.94%	1.60%
2019	54,652	3,116.2	Five or Fewer	1.66%	1.36%	1.10%	N/A	0.86%	0.45%
2018	44,278	1,673.5	Five or Fewer	0.48%	0.18%	-0.22%	N/A	1.79%	0.64%
2017	43,710	872.0	Five or Fewer	4.26%	3.99%	1.44%	N/A	1.96%	0.74%
2016	41,844	113.9	Five or Fewer	4.02%	3.76%	2.04%	N/A	3.07%	1.26%
2015	41,637	69.9	Five or Fewer	0.64%	0.39%	-0.09%	N/A	3.19%	1.73%
2014	46,214	72.4	Five or Fewer	12.33%	12.05%	5.67%	N/A	3.30%	1.92%

	Composite Gross of Fees %	Composite Net of Fees %	Benchmark %
3 year	2.08%	1.78%	1.20%
5 year	1.69%	1.39%	0.96%
10 year	2.97%	2.68%	1.35%
Since Inception	3.97%	3.68%	2.04%

#### Euro is the currency used to express performance.

### Past performance is not indicative of future results.

Performance returns are time weighted and presented gross and net of management fees and include the reinvestment of dividends, interest, and other earnings. The gross of fees performance figures does not reflect the deduction of investment management fees (as described in the firm's ADV, Part 2) and other expenses. Returns beyond 12 months are annualized.

N/A – Information is not statistically meaningful due to an insufficient number of portfolios in the composite or is not presented because 36 monthly returns are not available. Composite gross-of-fee returns were applied in the calculation of this composite's risk metrics. If applicable, the annual composite dispersion presented is an asset-weighted standard deviation calculated for the accounts in the composite the entire year.

Composite inception date July 1, 2011. Composite creation date: July 1, 2011.

Composites are constructed in a consistent manner, on a monthly basis and are asset weighted (beginning market value).



#### For Institutional Investors and Professional Clients only

# European Asset Backed Securities Composite (cont'd)

## GIPS<sup>®</sup> Composite Report – as of December 31, 2023

#### **Composite description**

The composite is constructed from discretionary funds that invest, direct or indirect, primarily in asset backed securities denominated in euro's, or hedged to euro's, across a variety of issuers, types of collateral, sectors and countries. The funds invests, direct or indirect, primarily in Residential Mortgage Backed Securities (RMBS), Commercial Mortgage Backed Securities (CMBS), Consumer Loans, Car Loans, Credit Card loans, Whole Business (repackaging of corporations/corporate assets) and other asset backed securities. The investment policy is focussed on adding value by an active selection policy of issuers, sectors and countries. The funds in this composite may also invest in derivates to hedge interest rate risks. The composite had been previously named Obligaties Asset Backed II until December 2014. A material amount of the composite's investments may be illiquid

The funds in this composite make use of leverage. The permitted net leverage, or the exposure resulting from the use of the authorized credit space and / or the entering into contracts in derivative financial instruments (in accordance with committed commitments) amounts to up to 50% of the fund's assets. These instruments (derivatives) will only be used if this is in line with the achievement of the Fund's objective to hedge risks and / or for efficient portfolio management.

#### **Summary of Risks**

•Credit: An issuer of bonds may be unable to make payments due to the client's managed account (known as a default). The value of bonds may fall as default becomes more likely. Both default and expected default may cause the account's value to fall. Investment grade bonds generally offer lower returns because of their lower default risk in comparison to high yield bonds which generally offer a comparatively higher return due to the increased risk of default. •Liquidity: Bonds may become difficult to trade or value due to market conditions or a lack of supply and demand.

#### **Benchmark selection**

The selected reference index is the Bloomberg Euro Fixed and Floating Total Return.

The index is appropriate for comparison purposes because the Index is representative of the types of investments included in this composite. The volatility of the Index may be materially different from the individual performance attained by any specific investor. In addition, client holdings may differ significantly from the securities that comprise the Index. An investor cannot invest directly in an index.

#### **Minimum amounts**

There is no minimum asset level for an account to be included in a composite.

#### **Firm description**

Aegon Investment Management B.V. ("AIM"), a private company with limited liability incorporated under the laws of the Netherlands and having its registered office in The Hague, the Netherlands, is a Dutch investment management business that is authorised and regulated by the Dutch Authority for the Financial Markets. AIM is a wholly-owned subsidiary of Aegon Asset Management Holding B.V. and an indirect wholly-owned subsidiary of Aegon Ltd. AIM is part of Aegon Asset Management, the global investment management brand of Aegon Group and operates under the brand name Aegon Asset Management NL ("AAM NL"). For the purposes of applying the GIPS Standards, the firm is defined as this legal entity excluding the AIM Multi-Manager Group as they are organizationally and functionally operating as a cohesive group, have common control over investment discretion and management, and have autonomy over the investment decision making process.

#### **GIPS compliance and verification**

Aegon Asset Management NL claims compliance with the Global Investment Performance Standards (GIPS<sup>®</sup>) and has prepared and presented this report in compliance with the GIPS standards. Aegon Asset Management NL has been independently verified for the periods 1 January 2001 through 31 December 2022. The verification report is available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

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#### Investment management fees, returns and valuation

Net-of-fees returns are calculated using actual management fees.

The annual investment management fee schedule for this composite is 0.04% - 4.00% based on assets under management.

Returns are presented net of non-reclaimable withholding taxes.

Performance returns have been calculated gross of management fees. Gross-of-fees performance returns are presented before management and custodial fees, but after trading expenses. These fees are accounted for on an accrual basis. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. A list of composite descriptions, a list of limited distribution pooled fund descriptions, if applicable, and a list of broad distribution pooled funds, if applicable, are available upon request. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm.



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# The principal risk of this product is the loss of capital. Please note that other risks will be present. The materiality of these risks will be accounted for in the mandate which will be governed by an investment management agreement.

All investments contain risk and may lose value. Responsible investing is qualitative and subjective by nature, and there is no guarantee that the criteria utilized, or judgement exercised, by any company of Aegon Asset Management will reflect the beliefs or values of any one particular investor. Responsible investing norms differ by region. There is no assurance that the responsible investing strategy and techniques employed will be successful. Investors should consult their investment professional prior to making an investment decision.

Past performance does not predict future returns. Outcomes, including the payment of income, are not guaranteed.

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