# Credit market and related exposures – additional information

# Contents

Sect	tion	Page
1.	Explanatory note	2
2.	Background	2
3.	Valuation	2
4.	Mortgage and other asset-backed exposures	3
5.	Financial guarantors	9
6.	Leverage finance	10
7.	SPEs and conduits	11

Note: the following acronyms are used in this supplement

- Asset-backed securities ABS
- CDO Collateralised debt obligations
- CLO Collateralised loan obligations
- СР
- Commercial paper Commercial mortgage-backed securities CMBS
- Government Sponsored Entity GSE
- Programme-wide credit enhancement PWCE
- Residential mortgage-backed securities RMBS
- SPE Special purpose entity

## Credit market and related exposures – additional information

#### 1. Explanatory note

The disclosures in this appendix supplement the information about credit market exposures given on pages 42 and 43. Additionally they include disclosures on the Group's involvement with conduits. The disclosures have been prepared on a pro forma basis including only those ABN AMRO businesses to be retained by the Group and portfolios within shared assets allocated to it and reflect the recommendations in the Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience.

## 2. Background

Widespread disruption in the financial markets was triggered in the late summer of 2007 by the accelerating deterioration in the US sub-prime mortgage market. Financial institutions recorded significant losses on complex structured securities. As market participants sought to reduce their leverage, there was increased appetite for liquid securities and many credit markets became illiquid. Markets remain dislocated and investor appetite for credit market exposures has yet to recover. The Group's businesses, in particular GBM, retain exposures to US sub-prime residential mortgage assets and to commercial mortgages mainly through its US securitisation activities. It also has exposure to monoline insurers where it has bought protection on asset-backed positions and it is also an active participant in the leveraged finance markets in the Americas and Europe. The Group's retail businesses have major mortgage franchises in the UK and the US.

#### 3. Valuation

Financial instruments classified as held-for-trading, designated as at fair value through profit or loss and available-for-sale are recognised at fair value. All derivatives are measured at fair value. The Group's approach to determining the fair value of financial instruments is described in Critical accounting policies and key sources of estimation uncertainty on pages 132 to 135 of the Group's 2007 accounts.

Certain financial instruments have been valued using valuation techniques where at least one input (which could have a significant effect on the instrument's valuation) is not based on observable market data (see page 90). At 30 June 2008 such financial assets amounted to £28.3 billion (2007 - £32.7 billion) and financial liabilities to £6.1 billion (2007 - £15.3 billion). Using reasonably possible alternative assumptions for the valuation of these financial instruments could result in fair value losses of up to £750 million or fair value gains of up to £900 million.

#### 4. Mortgage and other asset-backed exposures

#### 4.1 ABS CDO exposures – super senior tranches

The Group had a leading position in structuring, distributing and trading ABS. These activities included buying mortgage-backed securities, including securities backed by US sub-prime mortgages, and repackaging them into collateralised debt obligations for sale to investors. The Group retained significant holdings of super senior positions in CDOs. These positions represent the most senior positions in the CDO and, at the time of structuring, were senior to tranches rated AAA by independent rating agencies. However, since the inception of these transactions, the subordinate positions have diminished significantly in value and rating and, as a result, the super senior tranches of the CDOS now have greater risk of loss, based on current market assumptions concerning mortgage delinquencies and house prices in the US. Details of the Group's net held-for-trading exposures to these CDOs are set out below.

				_ · ·		
		30 June 2008		31 I	December 2007	
	High grade	Mezzanine	Total	High grade	Mezzanine	Total
	£m	£m	£m	£m	£m	£m
Gross exposure	6,470	3,062	9,532	6,420	3,040	9,460
Hedges and protection	(3,380)	(1,262)	(4,642)	(3,347)	(1,250)	(4,597)
Net exposure	3,090	1,800	4,890	3,073	1,790	4,863
Fair value adjustment	(1,482)	(1,439)	(2,921)	(492)	(537)	(1,029)
Net exposure after hedges	1,608	361	1,969	2,581	1,253	3,834
	%	%	%	%	%	%
% of underlying RMBS sub-prime assets (a)	69	91	79	69	91	79
Of which originated in:						
2005 and earlier	24	23	24	24	23	24
2006	28	69	46	28	69	46
2007	48	8	30	48	8	30
Collateral by rating (b):						
AAA	25	-	15	36	-	23
BBB- and above	44	10	29	62	31	51
Non-investment grade	31	90	56	2	69	26
Attachment point	29	46	35	29	46	35
Attachment point post write down	63	89	73	40	62	50
				10	02	

(a) at origination.

(b) rating is determined with reference to S&P ratings where available. Where S&P ratings are not available the lower of Moody's and Fitch ratings have been used.

The valuation of the Group's super senior ABS CDO exposures takes into consideration outputs from a proprietary model, market data and appropriate valuation adjustments. Valuation involves significant subjectivity; there is very little market activity to provide evidence of the price at which willing buyers and sellers would transact. The Group's proprietary model models the expected cash flows from the underlying mortgages using assumptions, derived from publicly available data, about future macroeconomic conditions (including house price appreciation and depreciation) and about defaults and delinquencies on these underlying mortgages. The resulting cash flows are discounted using a risk adjusted rate.

#### 4.2 Mortgage and other asset-backed securities

The table below analyses the Group's mortgage and other asset-backed securities, a proportion of the Group's overall portfolio of debt securities (pages 56 and 57) by measurement classification and underlying asset type.

		RMBS			CMBS	CDOs / CLOs	Other ABS	Total
	Sub-prime	Non conforming	Prin	ne				
30 June 2008	-	•	Agency	Other				
	£m	£m	£m	£m	£m	£m	£m	£m
AAA rated								
Held-for-trading	741	1,553	19,160	11,052	2,774	6,741	4,750	46,771
Available-for-sale	131	1,458	11,148	14,798	1,589	1,822	4,784	35,730
Other	-	-	-	-	448	-	-	448
	872	3,011	30,308	25,850	4,811	8,563	9,534	82,949
<u>BBB- and above</u>					<u> </u>	<u> </u>	· · · · ·	
Held-for-trading	1,254	114	-	841	550	966	2,606	6,331
Available-for-sale	-	8	-	19	10	-	96	133
Other	-	-	-	-	497	3	-	500
	1,254	122	-	860	1,057	969	2,702	6,964
Non-investment grade	· · · · ·						· · · ·	
Held-for-trading	378	77	-	20	31	587	145	1,238
Available-for-sale	-	-	-	-	-	4	10	14
	378	77	-	20	31	591	155	1,252
Not publicly rated								
Held-for-trading	570	66	-	93	515	1,468	1,503	4,215
Available-for-sale	-	-	-	-	31	6	457	494
Other	24	-	-	-	122	3	224	373
	594	66	-	93	668	1,477	2,184	5,082
<u>Total</u>								
Held-for-trading	2,943	1,810	19,160	12,006	3,870	9,762	9,004	58,555
Available-for-sale	<b>Í</b> 131	1,466	11,148	14,817	1,630	1,832	5,347	36,371
Other	24	-	-	-	1,067	6	224	1,321
Total	3,098	3,276	30,308	26,823	6,567	11,600	14,575	96,247

		RMBS			CMBS	CDOs / CLOs	Other ABS	Total
	Sub-prime	Non conforming	Prin	ne				
31 December 2007		<u> </u>	Agency	Other				
	£m	£m	£m	£m	£m	£m	£m	£m
AAA rated								
Held-for-trading	1,239	2,236	19,824	9,373	2,537	8,321	4,548	48,078
Available-for-sale	132	1,261	10,366	1,610	1,358	1,821	1,580	18,128
Other	-	-	-	-	157	-	-	157
	1,371	3,497	30,190	10,983	4,052	10,142	6,128	66,363
BBB- and above				· · · · ·				
Held-for-trading	2,576	428	-	535	470	763	1,671	6,443
Available-for-sale	2	18	-	-	-	-	116	136
Other	-	-	-	-	519	16	-	535
	2,578	446	-	535	989	779	1,787	7,114
Non-investment grade								
Held-for-trading	593	153	-	21	35	922	151	1,875
Available-for-sale	16	-	-	-	-	-	84	100
Other	5	-	-	-	-	-	-	5
	614	153	-	21	35	922	235	1,980
Not publicly rated								
Held-for-trading	975	170	-	118	446	2,113	2,239	6,061
Available-for-sale	-	-	-	-	9	8	301	318
Other	-	-	-	-	144	2	185	331
	975	170	-	118	599	2,123	2,725	6,710
<u>Total</u>								
Held-for-trading	5,383	2,987	19,824	10,047	3,488	12,119	8,609	62,457
Available-for-sale	150	1,279	10,366	1,610	1,367	1,829	2,081	18,682
Other	5	-	-	-	820	18	185	1,028
Total	5,538	4,266	30,190	11,657	5,675	13,966	10,875	82,167

(a) Agency securities comprise US federal agency securities and securities issued by GSEs. The Group's exposure to subordinated debt and preferred classes of these entities and agencies is limited (less than £50 million).

(b) CMBS comprises UK: £1,849 million (2007: £1,077 million); US: £3,400 million (2007: £3,572 million), including £1,194 million issued by federal agencies; Europe: £1,273 million (2007: £976 million); rest of the world: £45 million (2007: £50 million).

(c) The held-for-trading portfolios represent GBM's activities in structuring, distributing and trading asset-backed securities. The majority of these assets are hedged with financial guarantors (see section 6).

(d) The available-for-sale portfolio principally comprises securities held by Citizens as part of its balance sheet management.

		30 J	une 2008				31 Dece	mber 2007	,	
	Agency	Other prime	Alt-A	Sub-prime	Total	Agency	Other prime	Alt-A	Sub-prime	Total
<u>Book value</u>	£m	-	£m	£m	£m	0	£m	£m	£m	£m
Held-for-trading	19,160	1,241	1,019	2,318	23,738	19,824	1,383	2,118	3,807	27,132
Available-for-sale	11,148	1,442	575	-	13,165	10,366	1,272	640	-	12,278
	30,308	2,683	1,594	2,318	36,903	30,190	2,655	2,758	3,807	39,410
Of which originated in:										
- 2005 and earlier			1,021	1,415				1,165	2,241	
- 2006			226	692				630	1,444	
- 2007 and later			347	211				963	122	
		—	1,594	2,318				2,758	3,807	
Net exposure		—								
Held-for-trading	19,160	843	803	257	21,063	19,824	794	2,233	1,292	24,143
Available-for-sale	11,148	1,391	575	-	13,114	10,366	1,272	640	-	12,278
	30,308	2,234	1,378	257	34,177	30,190	2,066	2,873	1,292	36,421

The table below sets out the Group's direct exposure to US RMBS included above:

Agency comprises federal agencies and GSEs

# 4.3 Other mortgage-backed exposures

The Group's whole loans and warehouse facilities collateralised by mortgages are analysed below.

	30 June 2	008	31 Decembe	er 2007
	Whole loans	Warehouse facilities	Whole loans	Warehouse facilities
	£m	£m	£m	£m
Prime	197	1,505	453	575
Commercial	1,456	896	2,200	900
Non-conforming	39	1,188	57	1,445
Sub-prime	35	-	97	-
	1,727	3,589	2,807	2,920

#### 4.4 US residential mortgages

Citizens' 'Serviced By Others' (SBO) portfolio of residential mortgages by indexed valuation LTV (based on Case-Shiller property index) and type of mortgage is set out below:

		30 June 2008	3	31 December 2007				
	Sub-prime	Alt-A	Prime	Total	Sub-prime	Alt-A	Prime	Total
<70%		73	241	314		96	313	409
70% - 80%	-	35	90	125	-	62	146	208
80% - 90%	1	75	174	250	-	132	300	432
90% - 95%	-	67	160	227	-	148	377	555
95%-100%	-	134	381	515	-	223	631	854
> 100%	3	390	1,987	2,380	2	195	1,556	1,753
	4	774	3,033	3,811	2	856	3,323	4,181

#### 5. Financial guarantors

Significantly all of the Group's exposures to financial guarantors relates to monolines insurers (monolines) who specialise in providing guarantees on bond defaults. The exposure arises from over the counter derivative contracts principally credit default swaps (CDS). Direct exposure to monolines is the sum of the fair values of the CDSs. As the fair value of the protected assets declines the exposure to the guarantor increases. The Group's net exposure to monolines and the related credit valuation adjustment are as follows:

30 June 2008	31 December 2007
£m	£m
6,343	3,409
(715)	-
(3,230)	(862)
2,398	2,547
	£m 6,343 (715) (3,230)

The Group's direct exposures to monolines, by credit rating\* and protected asset type is shown below:

		30 June 2008			31 December 2007	
		Fair value of	Gross		Fair value of	Gross
	Notional	protected assets	exposure	Notional	protected assets	exposure
	£m	£m	£m	£m	£m	£m
AAA / AA rated						
RMBS and CDO of RMBS	2,850	1,258	1,592	5,049	3,079	1,970
CMBS	632	579	53	3,731	3,421	310
CLOs	5,655	5,053	602	9,941	9,702	239
Other ABS	1,298	1,134	164	4,553	4,388	165
Other	284	167	117	622	516	106
	10,719	8,191	2,528	23,896	21,106	2,790
A / BBB rated						
RMBS and CDO of RMBS	1,951	802	1,149	-	-	-
CMBS	3,150	2,433	717	-	-	-
CLOs	3,945	3,697	248	-	-	-
Other ABS	627	505	122	-	-	-
Other	173	124	49	-	-	-
	9,846	7,561	2,285	-	-	-
Sub-investment grade						
RMBS and CDO of RMBS	1,214	121	1,093	918	453	465
CLOs	274	257	17	-	-	-
Other ABS	887	763	124	-	-	-
Other	449	153	296	154	-	154
	2,824	1,294	1,530	1,072	453	619
Total						
RMBS and CDO of RMBS	6,015	2,181	3,834	5,967	3,532	2,435
CMBS	3,782	3,012	770	3,731	3,421	310
CLOs	9,874	9,007	867	9,941	9,702	239
Other ABS	2,812	2,402	410	4,553	4,388	165
Other	906	444	462	776	516	260
	23,389	17,046	6,343	24,968	21,559	3,409

\* based on Moody's

One of the monoline insurers, ACA Capital Insurance, is subject to a creditor agreement following a near default. The exposures to this counterparty have been fully marked down.

GBM and some of the Group's conduits also have indirect exposure through wrapped securities which have an intrinsic credit enhancement from a monoline insurer. These securities are traded with the benefit of this credit enhancement and therefore any deterioration in the credit rating of the monoline is reflected in the market prices for these securities.

## 6. Leverage finance

The Group's syndicated loans represent amounts retained from syndications where the Group was lead manager or underwriter, in excess of the Group's intended long term participation. Lending facilities in GBM's leverage finance franchise represents a significant proportion of the Group's syndicated facilities. Net leverage finance exposures by industry and geography are as follows:

			30 June 2008			31 December 2007				
—	US	UK	Europe	ROW	Total	US	UK	Europe	ROW	Total
—	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
TMT*	4,518	696	472	3	5,689	6,848	424	483	25	7,780
Retail	178	491	784	152	1,605	542	1,303	889	49	2,783
Industrial	209	1,541	945	23	2,718	249	2,018	983	45	3,295
Other	132	483	136	26	777	25	339	271	13	648
—	5,037	3,211	2,337	204	10,789	7,664	4,084	2,626	132	14,506
Of which:										
Loans	687	2,422	2,097	170	5,376	2,073	4,025	2,477	123	8,698
Commitments to lend	4,350	789	240	34	5,413	5,591	59	149	9	5,808
	5,037	3,211	2,337	204	10,789	7,664	4,084	2,626	132	14,506

\*telecommunications, media and technology

All the above are classified as held-for-trading except for £2,257 million (2007 - £2,541 million) classified as loans and receivables. The movement in the period comprised:

At 1 January 2008 Additions Sales Hedges Write-downs At 30 June 2008
-------------------------------------------------------------------------------------

A further £1.25 billion leverage loans were sold in July 2008.

# Credit market and related exposures – additional information

Syndicated loans are valued by considering recent syndication prices in the same or similar assets, prices in the secondary loan market, and with reference to relevant indices for credit products and credit default swaps such as the LevX, LCDX, ITraxx and CDX. Assumptions relating to the expected refinancing period are based on market experience and market convention.

### 7. SPEs and conduits

## 7.1 SPEs

In the normal course of business, the Group arranges securitisations to facilitate client transactions and undertakes securitisations to sell financial assets or to fund specific portfolios of assets. For a description of the Group's securitisations, see Note 30 of the 2007 accounts. There have been no material changes since the year end.

#### 7.2 Conduits

The Group sponsors and administers a number of multi-seller asset-backed commercial paper ("ABCP") conduits. The Group consolidates these conduits as it is exposed to the majority of the risks and rewards of ownership of these entities.

The multi-seller conduits have been established by the Group for the purpose of providing its clients access to alternative and flexible funding sources. The third party assets financed by the conduits are structured with a significant degree of first loss credit enhancement provided by the originators of the assets. This credit enhancement can take the form of transaction specific over-collateralisation, excess spread or originator provided subordinated loans. The Group provides a second loss layer of programme wide protection to the multi-seller conduits, however given the nature and investment grade equivalent quality of the first loss enhancement provided to the structures, the Group has only a minimal risk of loss on its total exposure. The ABCP issued by the conduits themselves is rated at A1 or A1+/P1 levels.

In addition to the PWCE, the Group provides liquidity back-up facilities to its own conduits. The short-term contingent liquidity risk in providing such backup facilities is mitigated by the spread of maturity dates of the commercial paper issued by the conduits. Limits sanctioned for such facilities at 30 June 2008 totalled approximately £44.5 billion (2007 - £46.3 billion). These liquidity facilities are sanctioned on the basis of total conduit purchase commitments and will therefore exceed the level of CP funded assets as at 30 June 2008.

During the difficult market conditions since August 2007, the multi-seller conduits were generally able to continue to issue rated CP albeit at generally shorter maturities and higher price levels than previously. There was an increased shortage of market liquidity, particularly in November and December, for longer dated issuance (i.e. over 1 month) as the year end approached. During the first half of 2008, ABCP market conditions have stabilised, with more liquidity returning to the market and the cost of CP issuance returning to levels only slightly above historic norms. Investors continue to distinguish between the stronger multi-seller conduits and weaker second tier and arbitrage conduits, with both ABN AMRO and RBS sponsored conduits falling principally into the former category and with both experiencing the improved market conditions. RBS and RBS Greenwich Capital Markets act as dealers to the RBS sponsored conduits' CP issuance programmes and have purchased CP in that capacity but such holdings have not generally been material. ABN AMRO Bank and ABN AMRO Corp act as dealers to the ABN AMRO sponsored programmes and have held generally non material CP on inventory.

The Group's exposure from both its consolidated conduits and its involvement with third party conduits are set out below:

	3	0 June 2008		31 D	ecember 2007	
	Own conduits	Third party conduits	Total	Own conduits	Third party conduits	Total
Total assets held by the conduits	£m 32,866	£m	£m	£m 31,103	£m	£m
Commercial paper issued	31,767			31,103		
Liquidity and credit enhancements - deal specific liquidity facilities - drawn - deal specific liquidity facilities - undrawn	1,099 40,820	2,296 528	3,395 41,348	43.761	2,280 490	2,280 44,251
<ul> <li>programme-wide liquidity</li> <li>PWCE</li> </ul>	151 2,530	438	589 2,530	75 2,915	807	882 2,915
	44,600	3,262	47,862	46,751	3,577	50,328
Maximum exposure to liquidity*	41,531	3,262	44,793	42,894	3,577	46,471

\*The maximum exposure to liquidity represents committed facilities but as not all facilities can be drawn at the same time, the maximum exposure to liquidity will not be the total of all such facilities.

# <u>Credit market and related exposures – additional information</u>

The Group's exposure from both its consolidated conduits and its involvement with third party conduits are set out below:

		CP funded assets											
				Geographic distribution					Credit ratings				
	CP funded assets	Undrawn	Total	UK	Europe	US	ROW	Total	ΑΑΑ	AA	Α	BBB	Below BBB
30 June 2008	£m	£m	exposure £m	£m	£urope £m	£m	£m	£m	£m	£m	£m	£m	£m
Credit card receivables	4,608	<b>800</b>	5,408	<b>599</b>	LIII	4,009	£111	<b>4,608</b>	957	<b>378</b>	3,088	185	LIII
Consumer loans	1,960	335	2,295	599 575	- 819	4,009	-	4,000 1,960	652	551	3,088 752	5	-
Auto loans	7,052	1,596	2,295 8,648	1,240	1,158	4,385	- 269	7,052	592	1,653	4,807	5	-
Trade receivables	3,646	1,901	5,547	1,240	1,332	4,383	209	3,646	80	876	2,387	- 175	128
Student loans	2,037	476	2,513	149	1,332	1,899	201	2,037	328	181	1,528	-	120
Floorplan	1,103	41	1,144	-	266	837	-	1,103	841	150	112	_	-
-	104							-	-		112	-	-
CDOs Commonial montanana		27	131	-	104	- 25	-	104	104	-	-	-	-
Commercial mortgages	1,127	18	1,145	715	-	25	387	1,127	323	522	266	16	-
Residential mortgages Prime	4 904	956	E 950		188	-	4 706	4 90 4	97	4 000	2 045	-	-
Buy-to-let	4,894	930	5,850	-	100	-	4,706	4,894	97	1,982	2,815	-	-
Non-conforming	- 2,515	- 943	- 3,458	- 1,565	- 950	-	-	- 2,515	- 395	- 1,475	- 645	-	-
Sub-prime	2,515	943	3,430	1,505	950	-	-	2,515	395	1,475	045	-	-
Other	3,820	- 1.705	5,525	- 524	1,112	- 1,269	- 915	3,820	- 624	- 913	2,274	9	-
Other	32,866	8,798	41,664	5,505	5,929	14,904	6,528	32,866	4,993	8,681	18,674	390	128
	52,000	0,790	41,004	3,303	3,323	14,304	0,320	52,000	4,995	0,001	10,074	330	120
31 December 2007													
Credit card receivables	4,966	1,170	6,136	629	-	4,337	-	4,966	1,217	810	2,793	146	-
Consumer loans	1,884	331	2,215	647	724	513	-	1,884	1,018	577	289	-	-
Auto loans	7,996	2,150	10,146	2,253	856	4,628	259	7,996	1,343	2,793	3,860	-	-
Trade receivables	3,286	2,366	5,652	291	816	1,928	251	3,286	116	732	2,183	204	51
Student loans	335	917	1,252	141	-	194	-	335	184	140	11	-	-
Floorplan	472	1,426	1,898	-	392	80	-	472	-	392	80	-	-
CDOs	105	14	119	-	105	-	-	105	105	-	-	-	-
Commercial mortgages	1,178	44	1,222	729	-	178	271	1,178	271	506	401	-	-
Residential mortgages													-
Prime	4,597	593	5,190	-	172	75	4,350	4,597	26	2,050	2,521	-	-
Buy-to-let	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-conforming	2,638	716	3,354	1,800	838	-	-	2,638	388	1,537	713	-	-
Sub-prime	9	348	357	-	-	9	-	9	-	-	9	-	-
Other	3,637	2,324	5,961	474	1,064	902	1,197	3,637	1,098	422	2,117	-	-
	31,103	12,399	43,502	6,964	4,967	12,844	6,328	31,103	5,766	9,959	14,977	350	51

## Credit market and related exposures - additional information

#### 8.5 Investment funds set up and managed by the Group

The Group's investment funds are managed by RBS Asset Management (RBSAM), which is an integrated asset management business that manages investments on behalf of third-party institutional and high net worth investors as well as for the Group. RBSAM is active in most traditional asset classes using fund of funds structures and multi-manager strategies. RBSAM also specialises in alternative investments such as private equity and credit products as well as funds of hedge funds. Assets under managements were £33.4 billion at 30 June 2008 (31 December 2007 - £30.9 billion) and includes long only funds of £23.2 billion (31 December 2007 - £22.1 billion), alternative investment funds of £6.5 billion (31 December 2007 - £2.4 billion).

#### 8.6 SIVs

The Group does not sponsor any structured investment vehicles.