

## IPE Survey Investment Grade Credit Managers

Company name	Aberdeen AM	Aegon AM	Allianz GI	Amundi	AXA IM	Babson CM	Baillie Gifford	Barrow, Hanley, Mewhinney & Strauss	BayernInvest	Joh. Berenberg & Gossler	BlackRock	BlueBay AM	BNG Vermogensbeheer	Candriam Inv. Group	Danske Capital
<b>Total assets in investment grade credit strategies (€m)</b>	35,510.59	60,058	155,229	178,480	209,250	3,735	754	6,977.2	1,541.51	5,950	231,157	26,219	3,510	2,035	6,144
As at	30/06/15	30/09/15	30/09/15	30/09/15	30/09/15	30/09/15	30/09/15	30/09/15	31/10/15	29/10/15	30/09/15	30/09/15	31/10/15	31/10/15	31/10/15
Total group assets under management worldwide (€m)	433,780	342,072	427,092	951,955	668,908	200,044	150,110	83,041.1	65,452.41	36,100	4,036,481	51,991	5,020	93,580	107,522
Total assets in fixed income worldwide (€m)	79,850	264,329	163,174	662,234	438,935	183,644	7,059	12,154.7	44,474.02	14,000	1,295,083	51,991	5,020	28,850	64,359
<b>Assets in investment grade credit strategies (€m)</b>															
Segregated account mandates	28,968.66		122,074	171,216	178,757	3,669	91	6,977.2	1,407.31	5,800		7,964	2,760	517	508
Pooled funds	6,541.93		33,155	7,264	30,493	66	663	0	134.2	150		18,255	750	1,518	5,636
Europe-based institutional clients	23,367.55	28,504	111,448	172,138	192,152	1,344	754	0	1,541.51	5,800		10,605	3,510	1,222	508
Institutional clients worldwide	35,510.59	41,642	122,074	176,699	195,402	3,735	675	6,977.2		0		14,626	3,510	1,267	508
European issues	24,563.26		137,930	NA	156,892	209	565	0	1,541.51	5,000			3,480	1,536	5,147
US issues	6,686.4		6,700 <sup>(2)</sup>	NA	36,555	3,243	100	6,977.2	0	350			20	374	690
Other issues	4,260.93		10,599	NA	15,803	283	89			600			10	125	307
Euro-denominated bonds	1,927.55		128,055	NA	156,824	NA	9	0	1,541.51	5,400			3,510	1,783	5,150
Dollar-denominated bonds	9,112.38		8,887	NA	14,943	NA	32	6,977.2	0	260			0	203	603
Sterling-denominated bonds	24,046.19		1,071	NA	19,544	NA	707	0	0	0			0	44	65
Other-denominated bonds	424.47		17,216		17,939		6			290				5	326
Passive	0	0	0	1,165	0	0	0	0	77.81	4,950		0	1,540	453	0
Benchmarked active	35,510.59	60,058	41,762	177,315	23,313	3,735	754	5,323.1	1,427.97	1,000		26,219	0	1,278	6,144
Benchmarked against an enhanced/alternatively-weighted index	0	0	0	0	185,595	0	0	0	0	0		0	100	0	0
Managed against a customised benchmark or risk/return target	0	0	100,844	NA	0	0	0	1,654.1	35.73	0		0	1,870	220	0
Unconstrained	0	0	12,623	NA	342	0	0	0	0	0		0	0	84	0
<b>Flagship investment grade credit strategy</b>															
Information ratio	0.5-1.0 <sup>(1)</sup>			0.70	0.77 <sup>(4)</sup>	0.78	0.9	0.84 <sup>(4)</sup>	1-2	0.45		>0.5	0.5	0.90 <sup>(1)</sup>	0.5
Acceptable tracking error	NA			1-2%	200bps	25-75bps	0.5-2.5%	60-75bps	0.5-1.0%	0.85%		0-3%	2%	2.00%	1%
<b>Targeted contribution to excess return (%)</b>															
Credit analysis	75			20	60	65	100	30	70	100		90	50	40	75
Duration management	5			5	5	5	0	5	10	0		5	40	10	0
Sector rotation	10			25	30	30	0	25	20	0		0	10	30	25
Credit default swaps	0			10	5	0	0	0	0	0		5	0	10	0
Currency	0			0	0	0	0	0	0	0		0	0	0	0
Other	10			40 <sup>(3)</sup>				40 <sup>(3)</sup>						10 <sup>(6)</sup>	
% of investment grade credit portfolios held in emerging markets	5		2	1.5	1	9.44	1		NA	5			0	5	0.5
% of investment grade credit research is done in-house	90	90		80	100	100	100	80	80	100		100	60	100	100
Number/location of credit analysts working investment grade credit portfolios	UK, 35; Americas, 22; Asia, 9	The Hague, 4; Cedar Rapids (IA), 17; Baltimore, 1	Europe, 48; New York, 3; Hong Kong, 5; Singapore, 6	Paris, 25; London, 1; Kuala Lumpur, 1; Singapore, 3; Tokyo, 1	Paris, 11; London, 5; Frankfurt, 1; Greenwich (CT), 14; Hong Kong, 4	Springfield (MA), 11; Boston, 2; London, 2	Edinburgh, 8	Dallas, 4	Munich, 5	Frankfurt, 9		London, 20; Connecticut, 6	The Hague, 4	Brussels, 6	Copenhagen, 8

Company name	Deka Investment	Delta Lloyd AM	Deutsche Asset & Wealth Mngt. <sup>(9)</sup>	Erste AM	Eurizon Capital	Fidelity International	Fisch AM	La Française	Franklin Templeton Inv.	Generali Inv. Europe	Goldman Sachs AM Int.	Groupama AM	Helaba Invest	Henderson GI	Insight IM (Global)	J.P. Morgan AM	Kempen CM
<b>Total assets in investment grade credit strategies (€m)</b>	15,598	15,000	75,332	2,000 <sup>(9)</sup>	5,971	29,558	2,749	8,320	430.63 <sup>(11)</sup>	113,340	52,152	18,335.6	6,035	17,965	40,755	19,266	3,615
As at	30/09/15	30/06/15	30/09/15	30/09/15	30/09/15	30/09/15	30/10/15	30/09/15	30/09/15	30/10/15	30/09/15	30/10/15	31/10/15	30/06/15	30/09/15	30/09/15	31/10/15
Total group assets under management worldwide (€m)	210,173	60,000	756,810	54,800	257,042	231,500	7,943	50,960	689,706.11	392,677	806,092	93,083	32,108	115,879	542,408	1,532,488	35,899
Total assets in fixed income worldwide (€m)	52,135	47,000	325,122	23,000	43,993	66,369	7,685	19,962	285,976.19	273,182	440,781.43	63,456.1	19,295	32,825	228,269	372,364	5,667
<b>Assets in investment grade credit strategies (€m)</b>																	
Segregated account mandates	10,148	12,500	66,750	340	274	4,978	895	5,958	423.55	105,766	5,155	13,212.9	4,785	7,296	32,264	12,401	1,831
Pooled funds	5,450	2,500	8,582	1,660	5,697	24,580	1,854	2,362	7.08	7,574	46,997	5,122.7	1,250	10,669	8,491	6,865	1,784
Europe-based institutional clients	15,598	15,000	51,930	2,000	4,400	1,835	8,240		65.02	113,340	13,598	18,335.6	6,035	13,120	36,703	3,630	3,144
Institutional clients worldwide	15,598	15,000	67,719	2,000	4,979	1,882			365.61	113,340	49,503	18,335.6	6,035	13,120	39,890	12,401	3,144
European issues			54,656	1,050		7,012	412	7,644	84.66	101,834	24,208	16,019.2	6,035	15,827	NA	7,941	3,651
US issues			16,435	550		7,173	358	474	271.79	7,825	14,400	1,954.6	0	1,086	NA	3,405	0
Other issues			4,241	400		15,373	1,979	202	74.18	3,681	13,544	361.8		1,052	7,920		
Euro-denominated bonds	15,598	14,400	28,884	1,080		7,012	770	8,173	6.79	111,323	669	17,953.2		3,651	NA	4,288	3,615
Dollar-denominated bonds	0	300	16,435	918		7,173	1,759	128	420	695	16,737	107.1		309	NA	12,073	0
Sterling-denominated bonds	0	150	4,792	2		13,143	55	9	1.9	88	0	140.2		13,413	NA	2,905	0
Other-denominated bonds		150	25,221			2,230	165	10	1.94	1,234	34,746	135.1		592			
Passive	0	0	3,667	120	0	0	0	0	0	0	0	0	0	0	0	0	0
Benchmarked active		15,000	71,665	1,380	5,971	29,558	2,749	1,853	430.63	82,154		18,335.6	6,035	10,242	40,755	17,437	3,615
Benchmarked against an enhanced/alternatively-weighted index		0	0	0	0	0	0	0		0		0	0	6,496	0	0	0
Managed against a customised benchmark or risk/return target		0	0	500	0	0	0	2,202		0		0	0	0	0	1,644	0
Unconstrained		0	0	0	0	0	0	4,265		31,186		0	0	1,227	0	185	0
<b>Flagship investment grade credit strategy</b>																	
Information ratio		1.39 <sup>(10)</sup>	>0.5	1.5 <sup>(1)</sup>	1.55	0-0.50	1.0		<sup>(8)</sup>	0.4	<sup>(13)</sup>	-0.19		0.66	1.95	0.4-0.5	2.25
Acceptable tracking error	1.5-2%	0.76% <sup>(4)</sup>	>1%	Max. 2.5%	2%	2%	NA	3-5%	75-125bps	1-2.5%		<2.5%	0.5-1.75%	2-3%	3%	1.50-2.00%	1.5%
<b>Targeted contribution to excess return (%)</b>																	
Credit analysis	50		50	35	40	40			20-30	70		30	50	60	30	0	50
Duration management	10		5	25	10	20	20		10-15	5		20	0	10	10	0	0
Sector rotation	20		10	25	25	20	20		20-30	5		25	0	10	0	10-20	0
Credit default swaps	10		0	0	0	0	0		NA	20		-20	0	20	0	0	0
Currency	0		0	5	5	0	0		20-30	0		0	0	0	5	0	0
Other	10		35 <sup>(7)</sup>		25 <sup>(10)</sup>	15 <sup>(11)</sup>	20 <sup>(12)</sup>		10-15 <sup>(11)</sup>			45 <sup>(14)</sup>	50 <sup>(15)</sup>		55 <sup>(16)</sup>	<sup>(17)</sup>	50 <sup>(12)</sup>
% of investment grade credit portfolios held in emerging markets		6		17	0	3.6	45	1.77	8.42	1		0.1	3	0.4	NA	0.27	0
% of investment grade credit research is done in-house	80	100	100	70	80	100	100	25	80	100		100	60	100	100	100	100
Number/location of credit analysts working investment grade credit portfolios	Frankfurt, 15	Amsterdam, 10	Frankfurt, 13; Zurich, 5; London, 2; New York, 11	Austria, 8; Romania, 1 Czech Republic, 1; Hungary, 1; Croatia, 1	Milan, 27	London, 19; Hong Kong, 8	Zurich, 12	Paris, 9	Global, 65 <sup>(43)</sup>	Paris, 5; Trieste, 6	NA	Paris, 12	Frankfurt, 10	Philadelphia, 2; London, 19	London, 25; New York, 17	New York, 6; London, 6	Amsterdam, 7

## Key:

NA= Not available

## Footnotes:

- (1) 3-year
- (2) Including Canada
- (3) Beta Credit risk, 30%; bond selection, 10%
- (4) 5-year
- (5) Security selection
- (6) Includes out-of-benchmark strategies such as non-rated issuers, rising stars issuers, USD issues hedged in EUR
- (7) Country allocation, 10%; rating allocation, 5%; debt seniority, 10%; coupon, 10%
- (8) All AUM figures include only assets of Deutsche AWM's asset management division globally, ex. wealth management

## management

- (9) Includes all in-house managed investment funds with a clear focus on investment grade corporates. Investment grade corporates included in balanced, aggregated or blended funds have not been included
- (10) Country selection, 15%; yield curve structure, 5%; execution, 5%
- (11) Yield curve positioning
- (12) Top-down
- (13) This and subsequent data varies by product
- (14) Subordinates, 25%; specific carry, 20%
- (15) Liquidity and risk management
- (16) Yield curve, 10%; security selection, 45%
- (17) Security selection, 60-80%; credit allocation, 10-20%
- (18

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Company name	Lazard AM (Deutschland)	LBBW AM	Legal & General IM	Lombard Odier IM	Lord, Abnett & Co.	Lupus alpha AM	M&G Investments	MacKay Shields	Macquarie AM	Man	MEAG	Metzler AM	Morgan Stanley IM	Neuberger Berman	NN Investment Partners
<b>Total assets in investment grade credit strategies (€m)</b>	1,192	5,400	101,326	5,575	42,963.2	670	136,670	16,588.7 <sup>(21)</sup>	92,052	8,658	80,028	1,494	11,386 <sup>(22)</sup>	13,784	5,137
As at	30/09/15	30/10/15	30/09/15	30/09/15	31/10/15	16/11/15	31/03/15	30/09/15	30/09/15	30/09/15	30/09/15	30/10/15	30/09/15	30/09/15	30/09/15
Total group assets under management worldwide (€m)	147,649	58,570	972,924	39,001	118,322.3	7,700	372,715	80,847.69	315,493	68,750	254,800	36,706	361,550	212,705	179,916
Total assets in fixed income worldwide (€m)	22,207	33,920	348,866	15,401	70,073.3	770	231,807	80,847.69	143,234	10,389	199,000	5,374	57,854	94,099	122,436
<b>Assets in investment grade credit strategies (€m)</b>															
Segregated account mandates	1,192	4,400	46,961.3	2,701		610		700.8 <sup>(22)</sup>	70,937	1,171	80,028	1,494	6,401	12,527	859
Pooled funds	0	1,000	54,364.7	2,874		60		3,811.9	21,115	7,487	0	0	4,985	1,257	4,278
Europe-based institutional clients	1,192	5,400	4,598	4,598		670		3,811.9	13	3,052	70,674	1,494	5,703	1,136	3,271
Institutional clients worldwide	1,192	5,400	5,249	5,249	2,856.5	670		4,512.7	92,052	6,988	80,028	1,494	9,247	13,152	3,865
European issues	928	5,400	4,040	4,040	2,298	670		389	8,228	4,863	70,674	715			3,633
US issues	251	0	848	848	4,310	0		4,090.33	67,729	3,795	7,747	117			775
Other issues	13		687	687	36,055			33.39	16,095		1,607	576			729
Euro-denominated bonds	1,039	5,400	1,192	1,192	26	670	15,630	0	0	2,635	63,520	874	4,654		4,360
Dollar-denominated bonds	149	0	494	494	42,609	0	1,931	4,512.72	84,534	4,227	12,509	0	6,561		607
Sterling-denominated bonds	4	0	129	129	22	0	117,199	0	0	1,344	2,498	0	171		8
Other-denominated bonds			3,760	3,760	6		1,910		7,518	452	1,501	534			162
Passive	0	0	29,476.8	0	0	0		0	0			0	0	1,157	0
Benchmarked active	1,192	3,100	50,921.5	4,332	42,963.3	0		4,512.72	92,052			1,423	11,386	10,705	3,489
Benchmarked against an enhanced/alternatively-weighted index	0	0	0	0	1,243	0		0	0			0	0	0	0
Managed against a customised benchmark or risk/return target	0	2,300	12,859.4	0	0	0		0	0			0	0	0	568
Unconstrained	0	0	8,068.3	0	0	670		0	0			71	0	1,922	1,080
<b>Flagship investment grade credit strategy</b>															
Information ratio	0.37	-0.91	1.3	NA	1.24		1.58 <sup>(1)</sup>	0.47	1.14 <sup>(6)</sup>			0.8	0.66 <sup>(23)</sup>	100bps	0.5
Acceptable tracking error	2%	<sup>(18)</sup>	0-1.5%	NA	NA		1-1.5%	2.58%	100bps		0.6%	≤2%	200-400bps	50-100bps	0-4%
<b>Targeted contribution to excess return (%)</b>															
Credit analysis	60	60	40	30	30	100	95	50	90		50	45	50	20-40	60
Duration management	15	10	10	0	0	0	5	5	5		10	25	10	5-15	5
Sector rotation	15	25	40	0	50	0	0	40	2		20	20	30	40-60	10
Credit default swaps	0	5	0	0	0	0	0	0	3		10	0	0	0	0
Currency	10	0	0	0	0	0	0	0	0		0	0	0	0	0
Other			10	70 <sup>(19)</sup>	20 <sup>(20)</sup>			5 <sup>(11)</sup>			10	10	10 <sup>(23)</sup>	5-15	25 <sup>(24)</sup>
% of investment grade credit portfolios held in emerging markets	0.6	5	0	4.05	2.83	0	0	0	<1		≤10	<5	6.42	<5	4.2
% of investment grade credit research is done in-house	75	70	100	100	90	100	100	90	100		50	80	80	100	100
Number/location of credit analysts working investment grade credit portfolios	Frankfurt, 6; Paris, 2	Stuttgart, 5	London, 8; Chicago, 7	London, 3	Jersey City, 17	Frankfurt, 4	Europe, 102	Nw York, 10	Philadelphia, 22; Seoul, 2; Sydney, 2; London, 1		Munich, 16; New York, 7	Frankfurt, 4	New York, 14; London, 7; Singapore, 2	Chicago, 10; London, 4; Shanghai, 1	The Hague, 5; New York, 2; Singapore, 4

Company name	Nordea AM	Payden & Rygel	PGIM Fixed Income	PIMCO Europe <sup>(25)</sup>	PineBridge Investments	Pioneer Inv.	Principal GI	Putnam Investments	Quoniam AM	Robeco Group	Rogge Global Partners	Royal London AM	Sparinvest	Standard Life Inv.	Standish Mellon AM Co.
<b>Total assets in investment grade credit strategies (€m)</b>	5,298	39,900	285,558.42 <sup>(27)</sup>	110,633	10,455	11,114	40,699.95	2,174	7,697	18,509	8,819	28,807	438.17	56,741.6	12,110
As at	31/10/15	30/09/15	30/09/15	30/09/15	30/09/15	31/10/15	30/09/15	30/09/15	30/10/15	30/09/15	30/09/15	30/09/15	25/11/15	30/09/15	30/09/15
Total group assets under management worldwide (€m)	189,480	85,196	506,025.62	983,602	69,486	224,727	305,511.3	130,446	25,740	255,426	33,588	113,478	9,254	340,028.8	140,751
Total assets in fixed income worldwide (€m)	64,369	84,100	503,439.99	876,110	38,874	123,382	141,063.94	47,596	11,963	42,773	33,588	55,768	5,159	120,978.1	140,751
<b>Assets in investment grade credit strategies (€m)</b>															
Segregated account mandates	3,334	37,453	234,818.35	49,013	8,212	2,826	32,569.82		7,480	15,818	8,491	19,986	42.31	24,960.3	11,741
Pooled funds	1,964	2,447	50,740.07	61,620	2,243	8,288	8,130.13		217	2,691	328	8,821	395.86	31,781.3	369
Europe-based institutional clients	2,855	2,170	18,373.54	19,909	1,838	4,679	1,836.39		7,697	16,309	5,473	28,807	14.3	39,214.6	1,203
Institutional clients worldwide	2,855	39,900	244,147.58	100,041	5,363	5,896	38,310.44		7,697	16,489	8,819	28,807	14.3	40,221	12,110
European issues	4,714	6,210	20,246.09	NA	1,243	7,463	7,255.23	402	3,116	13,532	5,456	255.86			1,331
US issues	569	28,519	250,720.29	NA	4,518	1,879	31,679.1	1,572	2,401	2,414	1,584	135.07			10,418
Other issues	15	5,171	14,592.04		4,694	1,772	1,765.62	200	2,180	2,563	1,779	47.24			361
Euro-denominated bonds	481	0	15,900	541	9,398		255.82	0	5,690	14,707	2,598	217.28			134
Dollar-denominated bonds	38,806	285,558.42	40,900	6,666	1,450		39,978.86	2,174	1,956	226	3,125	171.48			11,961
Sterling-denominated bonds	548	0	5,500	77	0		333.48	0	0	3,550	2,101	38.92			12
Other-denominated bonds	65		48,300	3,171	266		131.79		51	26	995	10.49			3
Passive	0	19	2,203	0	0		0	0	0	0	2,255	0		0	0
Benchmarked active	39,881	108,430	10,455				40,699.95	359	5,681	11,915	5,370	0		56,741.6	12,110
Benchmarked against an enhanced/alternatively-weighted index	0	0	NA	0	0		0	0	0	0	0	0		0	0
Managed against a customised benchmark or risk/return target	0	0	0	0	0		0	1,815	2,016	0	5,158	0		0	3,797
Unconstrained	0	0	16,440	0	0		0	0	0	7,161	1,274	438.17		0	0
<b>Flagship investment grade credit strategy</b>															
Information ratio	0.56	2	1.47 <sup>(4)</sup>	0.6 <sup>(26)</sup>	2.92	1.45 <sup>(1)</sup>	1.38	1.25-1.75%	0.5-1.0%	1.81	0.74		0.73	0.9	
Acceptable tracking error	1.03%	1.0-1.5%	100bps	3%	0.56%	3%	0.75-1.25%	1.25-2.0%	0.5-1.0%	2.50%	0-4%	≤2%	NA	<2%	50-100bps <sup>(28)</sup>
<b>Targeted contribution to excess return (%)</b>															
Credit analysis	100	60	40-60	50-70	0	35.48	70	50	80	70 <sup>(34)</sup>	70	100	75		
Duration management	0	10	0-5	0-20	5	25.81	10	5	20	0	5	10	0	5	
Sector rotation	0	25	40-50	10-30	15	0	20	30	0	0	15	0	0	20	
Credit default swaps	0	0	0-10	0-10	0	0	0	0	0	0	0	0	0	0	
Currency	0	5	0	0-10	0	6.45	0	0	0	0	10	0	0	0	
Other			0-10 <sup>(29)</sup>	80	32.26 <sup>(22)</sup>			15 <sup>(23)</sup>		30 <sup>(35)</sup>		20 <sup>(11)</sup>			<sup>(6)</sup>
% of investment grade credit portfolios held in emerging markets	0	0.6	2	0-25	16.2	0	0-5	1.86	5	2	6.22	0	3.72	0.1	0-10
% of investment grade credit research is done in-house	100	80	100	90	80	90	100	90	100	100	100	100	75	70	90
Number/location of credit analysts working investment grade credit portfolios	Copenhagen, 17	Los Angeles, 19; London, 2	Newark, 41; London, 10; Singapore, 3	Newport Beach, 31; London, 8; New York, 8; Munich, 2; Hong Kong, 6; Tokyo, 2; Rio de Janeiro, 2; Sydney, 1	Global, 46 <sup>(31)</sup>	Boston, 14; Dublin, 7; London, 6	London, 2; Des Moines (IA), 19	Boston, 12; London, 3	Frankfurt, 16; London, 1	Rotterdam, 13; Hong Kong, 1	London, 7; New York, 6	London, 4	Copenhagen, 5	Edinburgh, 23; London, 9; Boston, 9	Boston, 7; London, 1

## Key:

NA= Not available

## Footnotes:

- (1) 3-year
- (2) Including Canada
- (3) Beta Credit risk, 30%; bond selection, 10%
- (4) 5-year
- (5) Security selection
- (6) Includes out-of-benchmark strategies such as non-rated issuers, rising stars issuers, USD issues hedged in EUR
- (7) Country allocation, 10%; rating allocation, 5%; debt seniority, 10%; coupon, 10%
- (8) All AUM figures include only assets of Deutsche AWM's asset management division globally, ex. wealth management

management

- (9) Includes all in-house managed investment funds with a clear focus on investment grade corporates. Investment grade corporates included in balanced, aggregated or blended funds have not been included
- (10) Country selection, 15%; yield curve structure, 5%; execution, 5%
- (11) Yield curve positioning
- (12) Top-down
- (13) This and subsequent data varies by product
- (14) Subordinates, 25%; specific carry, 20%
- (15) Liquidity and risk management
- (16) Yield curve, 10%; security selection, 45%
- (17) Security selection, 60-80%; credit allocation, 10-20%
- (18) No target
- (19) Region and sector allocation
- (20) Includes yield curve and trading

(21) Includes investment grade credit exposure across all the firm's portfolios

(22) This and subsequent data relates to dedicated credit portfolios only

(23) Country

(24) Represents dedicated corporate bond strategies managed on a global basis

(25) 2-year

(26) Rating allocation, cash, off benchmark

(27) Assets represent investment grade corporate bonds, CMBS, ABS, emerging markets debt and municipal bonds

(28) 3-5 years

(29) Exploiting market inefficiencies

# IPE Survey Investment Grade Credit Managers

Company name	Stone Harbor IP	Syntus Achmea AM	TwentyFour AM	Union Investment
<b>Total assets in investment grade credit strategies (€m)</b>	2,136	5,111	3,033	16,015
As at	31/10/15	31/10/15	30/10/15	30/10/15
Total group assets under management worldwide (€m)	38,644	76,949	7,017	251,000
Total assets in fixed income worldwide (€m)	38,644	36,861	7,017	123,072
<b>Assets in investment grade credit strategies (€m)</b>				
Segregated account mandates	1,949	4,908	2,364	9,110
Pooled funds	187	203	669	6,905
Europe-based institutional clients	318	5,111	3,033	16,015
Institutional clients worldwide	2,136	5,111	3,033	16,015
European issues	117	4,300	3,033	
US issues	1,788	432	0	
Other issues	231	379		
Euro-denominated bonds	7	5,111	155	16,015
Dollar-denominated bonds	2,085	0	0	0
Sterling-denominated bonds	35	0	2,878	0
Other-denominated bonds	9			
Passive		0	0	
Benchmarked active	2,136	3,087	176	
Benchmarked against an enhanced/alternatively-weighted index		0	0	
Managed against a customised benchmark or risk/return target		2,024	2,857	
Unconstrained		0	0	
<b>Flagship investment grade credit strategy</b>				
Information ratio	0.40	2.2 <sup>(1)</sup> ; 0.79 <sup>(6)</sup>	NA	1.19 <sup>(3)</sup> ; 1.16 <sup>(4)</sup>
Acceptable tracking error	200bps	2%	2%	
<b>Targeted contribution to excess return (%)</b>				
Credit analysis	0	80	33	
Duration management	<sup>(8)</sup>	0	33	
Sector rotation	40-50	10	33	
Credit default swaps	0	0	0	
Currency	0-5	0	0	
Other	40-50	10 <sup>(5)</sup>		
% of investment grade credit portfolios held in emerging markets	2.4	5	0	
% of investment grade credit research is done in-house	100	85	50	100
Number/location of credit analysts working investment grade credit portfolios	New York, 16; London, 3	De Meern, 7	London, 10	Frankfurt, 16

Company name	Vanguard AM	Vontobel AM	Voya IM	Wells Capital Management	Western AM
<b>Total assets in investment grade credit strategies (€m)</b>	1,288	4,573	48,214	73,698.8	35,325
As at	30/09/15	30/06/15	30/09/15	30/09/15	30/09/15
Total group assets under management worldwide (€m)	2,851,588	87,701	187,618	310,387.9	399,672
Total assets in fixed income worldwide (€m)	692,953	17,590	114,055	144,924.3	399,672
<b>Assets in investment grade credit strategies (€m)</b>					
Segregated account mandates	0	922	47,631	29,054.1	21,173
Pooled funds	1,288	3,651	583	44,644.7	14,152
Europe-based institutional clients	217.3	4,305	452	1,952.5	1,132
Institutional clients worldwide	950.4	4,573	1,506 <sup>(9)</sup>	73,698.8	35,325
European issues	192	4,146	0	7,673.8	3,369
US issues	762.4	342.5	48,214	56,494.9	30,208
Other issues	333.6	84.5		9,530.1	1,748
Euro-denominated bonds	0		0	643.5	1,183
Dollar-denominated bonds	1,288		48,214	70,589.1	31,924
Sterling-denominated bonds	0		0	581.6	2,186
Other-denominated bonds				1,884.6	32
Passive	1,288	0	0	0	0
Benchmarked active	0	2,396	1,619	73,698.8	24,888
Benchmarked against an enhanced/alternatively-weighted index	0	0	0	0	0
Managed against a customised benchmark or risk/return target	0	0	46,595	NA	10,087
Unconstrained	0	2,177	0	0	350
<b>Flagship investment grade credit strategy</b>					
Information ratio	NA		0.625	4.12	0.50%
Acceptable tracking error	NA		150-200bps	NA	0.50%
<b>Targeted contribution to excess return (%)</b>					
Credit analysis	NA		60-80 <sup>(6)</sup>	50	40
Duration management	NA		10-20	10	20
Sector rotation	NA		10-20	20	30
Credit default swaps	NA			5	0
Currency	NA			5	0
Other				10	10 <sup>(7)</sup>
% of investment grade credit portfolios held in emerging markets	NA		0	0.82	2.01
% of investment grade credit research is done in-house	100		80	100	100
Number/location of credit analysts working investment grade credit portfolios	London, 8	Zurich, 7; London, 12	Atlanta, 28	San Francisco, 10	Pasadena, 4; London, 4; New York, 2; Melbourne, 1

## Key:

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## Footnotes:

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- 5-year
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- Country selection, 15%; yield curve structure, 5%; execution, 5%
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- Liquidity and risk management
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- This and subsequent data relates to dedicated credit portfolios only
- Country
- Represents dedicated corporate bond strategies managed on a global basis
- 2-year
- Rating allocation, cash, off benchmark
- Assets represent investment grade corporate bonds, CMBS, ABS, emerging markets debt and municipal bonds
- 3-5 years
- Exploiting market inefficiencies
- The firm operates as an autonomous subsidiary of Allianz SE, a global financial services company based in Germany
- New York, 17; London, 11; Hong Kong, 8; Tokyo, 2; Singapore, 2; Los Angeles, 2; Taipei, 1; Seoul, 1; Santiago, 1; San Francisco, 1
- Inflation, relative value, Itrend, quant FI, volatility, event driven and sovereign spreads
- Trading, 10%; yield curve positioning, 5%
- Issuer selection
- Beta
- Security selection, 60%; sector selection, 25%; country selection, 5%; yield curve positioning, 5%; duration positioning, 5%
- Rating
- Included within the firm's issue selection
- Excludes assets managed for the Voya IM proprietary insurance general account
- Includes credit default swaps
- Total value of investment grade credit debt managed by the firm is €81,389m as at 30/09/15
- Calgary, 1; Dubai, 1; Hyderabad, 4; Kuala Lumpur, 2; London, 4; Melbourne, 1; Mexico Distrito Federal, 2; Mumbai, 1; New York, 2; San Mateo, 43; Sao Paulo, 1; Seoul, 2; Singapore, 1

# IPE Survey Investment Grade Credit Managers

## In summary

### Survey overview

Total number of managers in survey	71
Total assets in investment grade credit strategies (€m)	2,702,244
Total invested for European institutional clients (€m)	1,143,797
Total invested through segregated account mandates (€m)	1,619,525
Total invested through pooled funds (€m)	599,622

\*Where disclosed

### Top 10 - Assets in investment grade credit strategies for European institutional clients

	Company	€m	As at
1	AXA Investment Managers	192,152	30/09/15
2	Amundi	172,138	30/09/15
3	Generali Investments Europe	113,340	30/10/15
4	Allianz Global Investors	111,448	30/09/15
5	MEAG	70,674	30/09/15
6	Deutsche Asset & Wealth Management	51,930	30/09/15
7	Standard Life Investments	39,215	30/09/15
8	Insight Investment Management (Global)	36,703	30/09/15
9	Royal London Asset Management	28,807	30/09/15
10	Aegon Asset Management	28,504	30/09/15

### Top 10 - Assets in investment grade credit strategies

	Company	€m	As at
1	PGIM Fixed Income	285,558	30/09/15
2	BlackRock	231,157	30/09/15
3	AXA Investment Managers	209,250	30/09/15
4	Amundi	178,480	30/09/15
5	Allianz Global Investors	155,229	30/09/15
6	M&G Investments	136,670	31/03/15
7	Generali Investments Europe	113,340	30/10/15
8	PIMCO Europe	110,633	30/09/15
9	Legal & General Investment Mngt.	101,326	30/09/15
10	Macquarie Asset Management	92,052	30/09/15

### Top 10 - Assets in investment grade credit strategies invested through segregated account mandates

	Company	€m	As at
1	PGIM Fixed Income	234,818	30/09/15
2	AXA Investment Managers	178,757	30/09/15
3	Amundi	171,216	30/09/15
4	Allianz Global Investors	122,074	30/09/15
5	Generali Investments Europe	105,766	30/10/15
6	MEAG	80,028	30/09/15
7	Macquarie Asset Management	70,937	30/09/15
8	Deutsche Asset & Wealth Management	66,750	30/09/15
9	PIMCO Europe	49,013	30/09/15
10	Voya Investment Management	47,631	30/09/15