

IPE SURVEY MANAGERS OF INVESTMENT GRADE CREDIT

Company	Aberdeen Standard Investments	Achmea Investment Management	Aegon Asset Management	AllianceBernstein	Amundi	Ashmore Group
Total assets in investment grade credit strategies (€m)	83,013	10,432	69,778	81,096	266,329	450
As at	30/06/18	31/12/18	31/12/18	31/12/18	30/09/18	31/12/18
Total group assets under management worldwide (€m)	630,000	128,995	315,628	451,693	1,567,041	67,500
Total assets in fixed income worldwide (€m)	156,721	78,534	232,722	220,381	939,595	56,700
Assets in investment grade credit strategies (€m)						
Segregated account mandates	68,361	9,365		69,784	178,153	340
Pooled funds		1,067		11,312		110
Europe-based institutional clients	74,882	10,432	26,849	7,863	170,188	440
Institutional clients worldwide	74,882	0	69,778	79,914	176,898	10
European issues		7,415		11,685		
US issues		1,672		61,197		
Other issues		1,345		8,214		450 ⁽⁴⁾
Euro-denominated bonds		10,078		3,835		
Dollar-denominated bonds		354		62,969		450
Sterling-denominated bonds		0		1,735		
Other-denominated bonds				12,557		
Passive		0		0		
Benchmarked active	83,013	2,744	69,778	7,505		450
Benchmarked against an enhanced/alternatively-weighted index		0		0		
Managed against a customised benchmark or risk/return target		7,688		73,591		
Unconstrained		0		0		
Flagship investment grade credit strategy						
Information ratio	0.69 ⁽¹¹⁾	3.8 ⁽²⁾				
Acceptable tracking error	3%					
Targeted contribution to excess return (%)						
Credit analysis	80	75				70
Duration management	5	0				0
Sector rotation	15	13				20
Credit default swaps	0	0				0
Currency	0	0				0
Other		12 ⁽⁵⁾				10
% of investment grade credit portfolios held in emerging markets	0	5		0.4		100
% of investment grade credit research is done in-house	70	75	90			70
Number/location of credit analysts working investment grade credit portfolios	Edinburgh, 19; London, 10; Boston, 13	Zeist, 9	The Hague, 6; Cedar Rapids, 12; Chicago, 6			London, 26; Singapore, 3; New York, 2

Company	A.S.R. Asset Management	Assenagon Asset Management	AXA Investment Managers	Baillie Gifford	Barings
Total assets in investment grade credit strategies (€m)	24,000	1,612	217,447	428	7,092
As at	30/09/18	31/12/18	30/09/18	31/12/18	31/12/18
Total group assets under management worldwide (€m)	55,000	19,707	740,461	193,086	265,256
Total assets in fixed income worldwide (€m)	41,000	1,765	462,725	8,259	197,610
Assets in investment grade credit strategies (€m)					
Segregated account mandates	21,000	1,252	173,794	0	7,059
Pooled funds	3,000	360	43,653	428	33
Europe-based institutional clients	24,000	1,612	183,566	428	1,750
Institutional clients worldwide	24,000	1,612	10,032	428	5,342
European issues	18,000		146,933	307 ⁽⁵⁾	417
US issues	4,500		38,137	58	6,382
Other issues	1,500		32,377	53	293
Euro-denominated bonds	22,500		158,086	11 ⁽⁵⁾	57
Dollar-denominated bonds	1,500		29,405	60	7,018
Sterling-denominated bonds	0		7,604	341	8
Other-denominated bonds			22,352	5	9
Passive	1,000	30		0	
Benchmarked active	4,500		40,559	428	7,092
Benchmarked against an enhanced/alternatively-weighted index	1,000		176,888	0	
Managed against a customised benchmark or risk/return target	17,500	1,582	2,591	0	
Unconstrained	0		0	0	
Flagship investment grade credit strategy					
Information ratio	0.5			0.9 ⁽²⁾	0.82
Acceptable tracking error	2%			0.5-2.5%	25-75bps
Targeted contribution to excess return (%)					
Credit analysis	50	60		100	55
Duration management	10	25		0	0
Sector rotation	40	0		0	10
Credit default swaps	0	15		0	0
Currency	0	0		0	0
Other					35
% of investment grade credit portfolios held in emerging markets	2	0	1.6	0	2
% of investment grade credit research is done in-house	50	100		100	100
Number/location of credit analysts working investment grade credit portfolios	Utrecht, 10	Munich, 8	Paris, 8; Frankfurt, 1; Hong Kong, 1; London, 8; Greenwich [CT], 7	Edinburgh, 4	Amsterdam, 1; Boston, 1; Charlotte [NC], 5; London, 2; Springfield [MA], 4

Key:

NA= Not available

Footnotes:

- (1) 1-year
- (2) 3-year
- (3) Beta timing
- (4) Emerging markets
- (5) Breakdown based on bond holdings only, excludes cash and derivatives
- (6) 3-5 years
- (7) Security selection
- (8) Credit market risk
- (9) Does not include portfolio managers who also have research responsibilities
- (10) Single credit selection, relative value
- (11) Includes customised and enhanced strategies

- (12) Country allocation, 10%; rating allocation, 5%; debt seniority, 10%; coupon, 10%
- (13) As at 30/09/18
- (14) Excludes private banks
- (15) No target
- (16) Relates to the alpha that the firm expects to generate from portfolio beta management and asset allocation
- (17) Bottom-up
- (18) Country selection, credit exposure
- (19) Varies by product
- (20) Yield curve, 10%; security selection, 45%
- (21) Investment themes
- (22) Investment grade/high yield positioning
- (23) As at 31/12/18

- (24) Target
- (25) Includes €4bn of short term fixed income and money market
- (26) Since inception in 2002
- (27) Includes derivative positions
- (28) Local market allocation
- (29) 10-year historical
- (30) Historical range
- (31) Economic outlook
- (32) Assets, performance and allocation data are reflective of the firm's dedicated stand-alone Investment Grade Credit Strategy Representative Portfolio. In total, the firm manages over €24bn in investment grade corporate debt across various investment portfolios
- (33) 5-year

- (34) Trading
- (35) Market selection, 25%; security selection, 15%; yield curve positioning, 5%
- (36) Relates to dedicated investment grade mandates
- (37) Sector/industry
- (38) Yield curve positioning
- (39) PFI
- (40) Jennison
- (41) Global
- (42) Trading and execution
- (43) Invested in institutional funds
- (44) Active sector allocation and credit analysis
- (45) Including internally managed assets, total AUM in investment grade credit strategies is €17,808m

IPE SURVEY MANAGERS OF INVESTMENT GRADE CREDIT

Company	Barrow, Hanley, Mewhinney & Strauss	BayernInvest	BlackRock	BlueBay AM	BNP Paribas AM	Candriam	Cheyne Capital	Columbia Threadneedle Investments	Conning	Deka Investment	DWS Group	Eastspring Investments	Eaton Vance	Erste AM
Total assets in investment grade credit strategies (€m)	4,650.9	14,870.15	223,541	28,922	11,757	8,340.96	1,515	30,602	42,667	15,616	69,194	4,657.25	15,303	2,200
As at	31/12/18	31/12/18	31/12/18	31/12/18	30/09/18	31/12/18	31/12/18	31/12/18	31/12/18	30/09/18	30/09/18	31/12/18	31/12/18	31/12/18
Total group assets under management worldwide (€m)	62,729.5	80,600.81	5,227,502	52,398	556,535	114,895.13	6,500	376,000	116,041	238,200	691,551	169,434.05 ⁽¹⁾⁽⁸⁾	369,643	57,800
Total assets in fixed income worldwide (€m)	9,943.2	51,649.31	1,648,441	52,398	221,401	37,303.92	5,855	146,670	99,225	60,869	280,498	71,476.79 ⁽¹⁾⁽²⁾	105,679	20,700
Assets in investment grade credit strategies (€m)														
Segregated account mandates	4,650.9	14,519.09	74,806	12,485	4,131	6,868.31	320	24,135	42,667	12,109	56,215	0	8,494	
Pooled funds	0	351.06	148,735	16,437	7,626	1,472.66	1,195	6,467	0	3,507	12,979	4,657.25	6,809	
Europe-based institutional clients	0	14,870.15	58,556	19,341	7,207	7,391.29	879	11,053	3,764	13,465	47,295	172.7 ⁽¹⁾⁽⁴⁾	0	1,500
Institutional clients worldwide	4,650.9	14,870.15	145,331	28,787	7,950	7,391.29	1,515	25,225	42,667	13,465	64,127	4,182.1	15,303	
European issues	0	9,849.36				5,579.5	727	12,364	787				759	
US issues	4,650.9	2,948.49				683.26	788	17,935	40,968			4,657.25	13,302	
Other issues	0	2,072.3				2,078.21		303	911				1,242	
Euro-denominated bonds	0	11,736.97				7,698.75		1,296	189	15,616			0	
Dollar-denominated bonds	4,650.9	2,819.61				595.15		17,935	40,968			4,657.25	15,063	
Sterling-denominated bonds	0	160.24				21.61		11,068	599				0	
Other-denominated bonds	0	153.33				25.45		303	911				240	
Passive	0		124,599	0		219.87		0			5,412		4,736	
Benchmarked active	3,030.2		98,942	27,454		11,646	3,695.58	30,602	42,667		63,782 ⁽¹⁾⁽¹⁾	4,657.25	10,288	
Benchmarked against an enhanced/alternatively-weighted index	0					111	59.75	0					0	
Managed against a customised benchmark or risk/return target	1,620.7					0	4,365.76	24,134					106	
Unconstrained	0		1,468					0		1,515			173	
Flagship investment grade credit strategy														
Information ratio	70-100bps ⁽¹⁾⁽⁴⁾	>1.0		0.5	0.5	0.5		1.1	0.49		>0.5	1.41 ⁽²⁾	0.78	
Acceptable tracking error	60-75bps ⁽¹⁾⁽¹⁾	0.4-0.6%		0-3%	1-1.5%	100bps		1.1%	0-1.5%	1.5-2%	<1%	⁽¹⁾⁽⁵⁾	150-250bps	
Targeted contribution to excess return (%)														
Credit analysis	30	70		90	50	40		70	35	50	50	70	45	
Duration management	5	10		5	20	20		0	15	10	5	0	20	
Sector rotation	25	20		0	30	30		10	50	20	10	15	35	
Credit default swaps	0	0		5	0	10		0	0	10	0	0	0	
Currency	0	0		0	0	0		0	0	0	0	0	0	
Other	40 ⁽⁷⁾							20 ⁽⁸⁾		10 ⁽¹⁾⁽³⁾	35 ⁽¹⁾⁽²⁾	15		
% of investment grade credit portfolios held in emerging markets	0	0				5	0	0	2		5-10	8.99	2	
% of investment grade credit research is done in-house	80	80		100	100	100	100	80	100	80	100	100	100	
Number/location of credit analysts working investment grade credit portfolios	Dallas, 4	Munich, 6		Stamford, 5; London, 22	New York, 4; Paris, 7; London, 1		8	London, 7; Minneapolis, 7; Boston, 1 ⁽⁹⁾	London, 3; Hartford, 13	Frankfurt, 26	Frankfurt, 19; Seoul, 1; Hong Kong, 4; London, 6; Mumbai, 4; New York, 13; Zurich, 5	Chicago, >40	Boston, 14; Washington DC, 9	

Company	Fidelity International	Fisch AM	Goldman Sachs AM	Helaba Invest	Insight	Invesco Fixed Income	Investec AM	Janus Henderson Investors	Jyske Capital	Kempen Capital Management	La Française	Legal & General Inv. Mngt.	Lombard Odier Inv. Managers	Loomis, Sayles & Co.
Total assets in investment grade credit strategies (€m)	18,400	4,175	94,037.74	8,752.9	75,434	39,609	1,803.67	14,213	202	4,839	5,090	92,003.92	4,679.66	14,302.52
As at	30/09/18	31/12/18	31/12/18	31/12/18	31/12/18	30/09/18	31/12/18	30/09/18	31/12/18	31/09/18	31/12/18	30/06/18	31/12/18	31/12/18
Total group assets under management worldwide (€m)	265,571	8,828	1,165,428.94	61,191.3	691,691	844,635	117,901	325,477	19,792	60,883	65,755	1,113,645.39 ⁽²⁾⁽⁷⁾	39,946.63	218,445.71
Total assets in fixed income worldwide (€m)	64,908	8,017	514,210.71	38,253.4	291,540	202,171	34,261.8	65,085	12,172	7,180	12,642 ⁽²⁾⁽³⁾	418,112.58	14,941.19	217,702.09
Assets in investment grade credit strategies (€m)														
Segregated account mandates	4,443	2,267	88,189.35	7,510.9	52,663		1,543	9,895	150	2,644	792	44,334.05	2,225.79	7,543.6
Pooled funds	13,957	1,908	5,848.4	1,242	22,771			4,318	52	2,195	4,298	47,669.87		6,758.92
Europe-based institutional clients	4,271	4,174	24,948.18	8,752.9	54,929		1,618	11,800	150	2,877	4,229	4,179.48	1,637.55	
Institutional clients worldwide	13,123	1	87,635.09	75,265	75,265			12,087	150	2,877	4,273	4,231.29	14,203.64	
European issues		1,885	26,108.25	43,410	43,410		300.85		101	4,839	4,693	3,444.83	1,474.59	
US issues		207	59,550.56	24,076	24,076		97		50.5		199	487.52	10,583.87	
Other issues		2,083	8,378.93	7,948	7,948		1,405.82		50.5		198	747.31	2,244.06	
Euro-denominated bonds		1,206	150.07	8,752.9	21,614		117		202	4,113	4,983	868.63	0	
Dollar-denominated bonds		2,276	25,609.83	24,901	24,901		1,678.96				100	281.16	14,302.52	
Sterling-denominated bonds		60	754.95	27,135	27,135		7.46				726	99.57	0	
Other-denominated bonds		633	67,480.02	1,784	1,784		0.25				5	3,430.3	0	
Passive	51	0	0	0	0		0				0	28,815	0	
Benchmarked active	14,403	4,175	94,037.74	8,752.9	75,434		0	6,461	202	4,839	501	54,009	3,863.16	2,118.11
Benchmarked against an enhanced/alternatively-weighted index	0	0	0	0	0		0				0	111	816.5	11,337.94
Managed against a customised benchmark or risk/return target	57	0	0	0	0		0	7,752			1,782	8,659	645.28	
Unconstrained	3,689	0	0	0	0		1,803.67				2,807	409	201.19	
Flagship investment grade credit strategy														
Information ratio	0.5	1.2	⁽¹⁾⁽¹⁾		0.5	1		0.77 ⁽²⁾⁽³⁾	1.94 ⁽²⁾	2.1		1.23 ⁽²⁾⁽⁴⁾	1.15%	-0.37
Acceptable tracking error	100-300bps	2-3%	⁽¹⁾⁽¹⁾		3%	1-2%		2-3% ⁽²⁾⁽⁴⁾	2%	1.50%	1-3%	1.15%	1-2%	
Targeted contribution to excess return (%)														
Credit analysis	10-25	40 ⁽¹⁾⁽³⁾		50	30	50	70	60	66.66	50	40	40	50	60-80
Duration management	20-40	10		10	10	10	0	10		10	20	10	0	0-20
Sector rotation	10-30	20		0	10	15		10	33.33	30	40	40	40	10-20
Credit default swaps	NA	0		0	0	0		20		0	10	0	0	0
Currency	0-5	0		5	5	10		0		0	0	0	0	0
Other	20-40 ⁽¹⁾⁽⁴⁾	30 ⁽¹⁾⁽⁸⁾		50	55 ⁽²⁾⁽⁸⁾	30 ⁽²⁾⁽¹⁾	15 ⁽²⁾⁽²⁾			50		10	10 ⁽²⁾⁽⁸⁾	
% of investment grade credit portfolios held in emerging markets	c.5-10	42		4	1.57	0-10	91	1.49	0	0	<5	0	5.23	4.04
% of investment grade credit research is done in-house	100	100	85	75	100	80	100	100	100	100	100	100	100	90
Number/location of credit analysts working investment grade credit portfolios	London, 20; Hong Kong, 6; Shanghai, 4; Tokyo, 1	Zurich, 14	NA	Frankfurt, 13	London, 28; New York, 21	Atlanta, 34; Downers Grove (IL), 20; Hong Kong, 4; New York, 12; Palm Harbor (FL), 1; San Francisco, 1; London, 15; Portland, 1; Louisville (KY), 11	New York, 3; London, 11; Chile, 2	Denver, 15; London, 14 ⁽²⁾⁽³⁾	Silkeborg, 4	Amsterdam, 8	Paris, 9; Hong Kong, 1	London, 14; Chicago, 12; Hong Kong, 1	London, 3; Zurich, 2; Singapore, 1	Boston, 48; London, 5; Singapore, 5

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 (6) 3-5 years
 (7) Security selection
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 (12) Country allocation, 10%; rating allocation, 5%; debt seniority, 10%; coupon, 10%
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IN SUMMARY

Survey overview

Total number of managers in survey	67
Total assets in investment grade credit strategies	€m 2,685,740
Total invested for European institutional clients*	1,026,221
Total invested for institutional clients worldwide*	1,747,670
Total invested through segregated account mandates*	1,683,979
Total invested through pooled funds*	555,523

*Where disclosed

Top managers: Assets in investment grade credit strategies

Company	€m	As at
1 PGIM	445,651	31/12/18
2 Amundi	266,329	30/09/18
3 BlackRock	223,541	31/12/18
4 AXA Investment Managers	217,447	30/09/18
5 M&G Investments	197,765	30/06/18
6 Goldman Sachs Asset Management	194,038	31/12/18
7 Legal & General Investment Management	92,004	30/06/18
8 Aberdeen Standard Investments	83,013	30/06/18
9 AllianceBernstein	81,096	31/12/18
10 Insight	75,434	31/12/18
11 MEAG	70,902	30/09/18
12 Aegon Asset Management	69,778	31/12/18
13 DWS Group	69,194	30/09/18
14 Macquarie Investment Management	56,290	31/12/18
15 Wells Fargo Asset Management	47,336	31/12/18
16 Conning	42,667	31/12/18
17 Western Asset Management Co.	41,191	31

IPE SURVEY MANAGERS OF INVESTMENT GRADE CREDIT

Company	Lord, Abnett & Co.	Lupus alpha Asset Management	M&G Investments	Macquarie Investment Management	MEAG	Metzler Asset Management	Morgan Stanley Investment Management	Neuberger Berman	NN Investment Partners	Ostrum Asset Management	Payden & Rygel	PGIM	Pictet Asset Management	PineBridge Investments
Total assets in investment grade credit strategies (€m)	1,801 ⁽¹²⁾	2,500	1,077,765	56,289.64	70,902	1,058.64	12,816 ⁽¹³⁾	33,194	35,882	10,201	37,077	445,651	3,367	14,573
As at	31/12/18	31/12/18	30/06/18	31/12/18	30/09/18	31/12/18	31/12/18	31/12/18	30/09/18	31/12/18	31/12/18	31/12/18	31/12/18	30/09/18
Total group assets under management worldwide (€m)	141,718	10,500	323,125	204,950.02	252,133	46,518.9	405,132	266,031	238,180	257,575	97,538	1,015,973	151,878	78,316
Total assets in fixed income worldwide (€m)	99,936	2,700	200,250	127,308.25	183,596	7,994.45	68,232	122,321	173,716	227,172	95,540	823,250	30,392	47,810
Assets in investment grade credit strategies (€m)														
Segregated account mandates	0	2,450		51,825.99	70,902	1,058.64	8,051	31,330	27,997	6,608	34,261	341,903	523	12,244
Pooled funds	1,801	50		4,463.65	0	0	4,765	1,864	7,885	3,593	2,816	103,748	2,844	2,329
Europe-based institutional clients	0	2,500		1,090.57	61,177	597.51	8,550		33,470	7,971	12,822	25,949	192	2,451
Institutional clients worldwide	0	2,500		50,495.88	70,902	1,058.64	4,265	31,897	34,088		37,077	367,643	607	9,343
European issues	195	2,500		1,254.32	61,177	470.78	6,417		26,071		6,767	46,133		
US issues	1,294	0		45,958.87	7,901	79.39	2,454		6,727		23,459	381,935		
Other issues	320			9,076.45	1,824	508.47	3,945		3,084		6,851	17,583		
Euro-denominated bonds	6	2,500	13,073	70.81	56,583	597.52	6,696		34,279		987		2,879	
Dollar-denominated bonds	1,802	0	12,503	46,080.67	10,482	0	3,049		1,481		35,370	445,651	365	
Sterling-denominated bonds	0	0	82,031	0.13	2,512	0	937		5		513		0	
Other-denominated bonds	1		23	10,138.03	1,325	461.12	2,134		117		207		123 ⁽¹⁴⁾	
Passive	0	0		182.93				2,756			0			
Benchmarked active	1,801	0		52,135.34		1,058.64	12,816	26,223	9,570		37,077	445,651	3,367	14,573
Benchmarked against an enhanced/alternatively-weighted index	0	0				0							NA	
Managed against a customised benchmark or risk/return target	0	0		3,971.37		0							0	
Unconstrained	0	2,500				0		4,215	26,312				NA	
Flagship investment grade credit strategy														
Information ratio	1.13 ⁽¹⁵⁾	NA	1.08 ⁽¹⁶⁾	0.20 ⁽¹⁷⁾	-0.97	0.8	0.07 ⁽¹⁸⁾	100bps	50	0.50 ⁽¹⁹⁾	1.0-2.0	0.86 ⁽²⁰⁾ , -0.26 ⁽¹⁴⁾⁽²¹⁾	NA	0.67 ⁽²²⁾
Acceptable tracking error	1.5-3.5 ⁽²³⁾	NA	1-1.5%	100bps ⁽²⁴⁾	NA	0.75-1.25%	0.68% ⁽²⁵⁾	50-100bps	0-4%	150bps ⁽²⁶⁾	1.0-1.5%	100bps ⁽²⁷⁾ , 0.41% ⁽²⁸⁾	Max. 2%	0.41% ⁽²⁹⁾
Targeted contribution to excess return (%)														
Credit analysis	40	100	95	55	50	45	20	20-40	60	55	60	40-60 ⁽³⁰⁾ , 30 ⁽³¹⁾	40	65
Duration management	5	0	5	5	10	25	5	5-15	5	10	13	0-5 ⁽³²⁾ , 0 ⁽³³⁾	10	10
Sector rotation	45	0	0	25	20	20	20	40-60	10	20	25	40-50 ⁽³⁴⁾ , 40 ⁽³⁵⁾	30	15
Credit default swaps	0	0	0	0	10	0	0	0	0	5	2	0-10 ⁽³⁶⁾ , 0 ⁽³⁷⁾	0	0
Currency	0	0	0	0	0	0	10	0	0	0	0	0 ⁽³⁸⁾	20	0
Other	10 ⁽³⁹⁾			15 ⁽⁴⁰⁾	10	10	45 ⁽⁴¹⁾	5-15 ⁽⁴²⁾	25	10 ⁽⁴³⁾		0 ⁽³⁹⁾ , 30 ⁽⁴⁴⁾		10 ⁽⁴⁵⁾
% of investment grade credit portfolios held in emerging markets	10.2	0	0	45	45	<5	5	<5	2.7	3-5	0	0.73 ⁽⁴⁶⁾ , 1 ⁽⁴⁷⁾	<5	80
% of investment grade credit research is done in-house	90-100	100	100	90	70	80	80	100	100	100	80	100 ⁽⁴⁸⁾ , 75 ⁽⁴⁹⁾	70	80
Number/location of credit analysts working investment grade credit portfolios	Jersey City (NJ), 25	Frankfurt am Main, 4	35	Philadelphia, 16; Australia, 2	Munich, 17; New York, 12	Frankfurt/Main, 7	New York, 18; London, 9; Singapore, 2	Chicago, 11; London, 5	The Hague, 5; New York, 7; Singapore, 4		Los Angeles, 25; London, 3	Newark, 35; London, 11; Singapore, 3; Boston, 5	London, 3; Hong Kong, 1; Singapore, 3; Geneva, 8	New York, 18; London, 4; Hong Kong, 11; Los Angeles, 1; Singapore, 2; Tokyo, 1; Taipei, 1; Mumbai 1

Company	Principal Global Investors	Putnam Investments	Quoniam Asset Management	Raiffeisen Capital Management	Robeco	Stone Harbor Investment Partners	Swisscanto Invest (Zürcher Kantonalbank)	T. Rowe Price	TwentyFour Asset Management	UBS Asset Management	Union Investment	Vontobel Asset Management	Wells Fargo Asset Management	Western Asset Management Co.
Total assets in investment grade credit strategies (€m)	38,411	8,053	9,581	4,247	15,922	1,431	25,184	10,997.86	2,998	8,619 ⁽⁵⁰⁾	22,409	3,427	47,336	41,191
As at	31/12/18	31/12/18	31/12/18	28/12/18	30/09/18	31/12/18	31/12/18	31/12/18	31/12/18	31/12/18	30/11/18	30/06/18	31/12/18	31/12/18
Total group assets under management worldwide (€m)	361,044	140,167	28,810	32,214	170,784	22,966	132,314	841,800.79	15,630	681,775	330,822	106,540	325,370	375,400
Total assets in fixed income worldwide (€m)	166,441	56,287	12,033	11,431	38,852	22,966	48,441	194,201	15,630	146,342	165,438	14,112	145,925	375,400
Assets in investment grade credit strategies (€m)														
Segregated account mandates		8,014	8,882		9,249	1,193		8,076.39	323		11,660	1,052		31,667
Pooled funds		39	699		6,673	238		2,921.47	2,475		10,749	2,375		5,524
Europe-based institutional clients	1,870	802	9,581	2,384 ⁽⁵¹⁾	11,590	605		1,354.58	293		19,399	3,396	3,478	3,628
Institutional clients worldwide		8,014	9,581		12,390	1,431		9,643.28	293		19,617	3,427		41,191
European issues		806	4,122		10,922	178		674.27	2,583		16,555			2,431
US issues		7,167	4,270		2,865	1,094		9,151.81	135		3,939			35,226
Other issues		80	1,189		2,135	159		1,171.78	80		1,915			3,534
Euro-denominated bonds		402	6,715		11,642	23		133.38	149		16,785			903
Dollar-denominated bonds		7,651	2,740		1,505	1,335		10,443.4	98		5,624			37,786
Sterling-denominated bonds		0	100		2,750	54		25.97	2,551		0			1,528
Other-denominated bonds		0	6		25	19		395.11			0			974
Passive		0									0			0
Benchmarked active		8,053	6,626		15,922	1,431		10,735.55	874		19,597	3,427		24,065
Benchmarked against an enhanced/alternatively-weighted index		0									0			0
Managed against a customised benchmark or risk/return target		0	2,955						1,924		2,812			15,962
Unconstrained		0						262.31			0			1,164
Flagship investment grade credit strategy														
Information ratio		0.55 ⁽⁵²⁾	0.5-1		0.99 ⁽⁵³⁾	0.4		0.33			0.56 ⁽⁵⁴⁾			0.5
Acceptable tracking error		1.25-2.00%	0.5-1%		Max. 3.0%	200bps		0.6-0.8%			2%			100bps
Targeted contribution to excess return (%)														
Credit analysis		50	80		70			85	33.33		80			70
Duration management		10	20					5	33.33		0			10
Sector rotation		30	0			50		10	33.33		15			0
Credit default swaps		0	0					0			5			0
Currency		0	0					0			0			0
Other		10 ⁽⁵⁵⁾			30	50 ⁽⁵⁶⁾								20
% of investment grade credit portfolios held in emerging markets		0	6		0	6.29		NA	1.6		9.5			0
% of investment grade credit research is done in-house		90	100		100	100		>90	100		90-100		90	100
Number/location of credit analysts working investment grade credit portfolios		Boston, 9; London, 4	Frankfurt, 8		Rotterdam, 16; London, 1; Hong Kong, 1; Singapore, 2; New York, 2	New York, 12; London, 3		London, 7; Baltimore, 14	London, 5	Chicago, 11; Sydney, 3; New York, 2; Singapore, 2; Zurich, 6; Shanghai, 1; London, 3	Frankfurt, 21; Hong Kong, 5	New York, 2; Zurich, 6		Pasadena, 6; London, 6; New York, 1; Melbourne, 2; Tokyo, 1

Key:
 NA= Not available
Footnotes:
 (1) 1-year
 (2) 3-year
 (3) Beta timing
 (4) Emerging markets
 (5) Breakdown based on bond holdings only, excludes cash and derivatives
 (6) 3-5 years
 (7) Security selection
 (8) Credit market risk
 (9) Does not include portfolio managers who also have research responsibilities
 (10) Single credit selection, relative value
 (11) Includes customised and enhanced strategies
 (12) Country allocation, 10%; rating allocation, 5%; debt seniority, 10%; coupon, 10%
 (13) As at 30/09/18
 (14) Excludes private banks
 (15) No target
 (16) Relates to the alpha that the firm expects to generate from portfolio beta management and asset allocation
 (17) Bottom-up
 (18) Country selection, credit exposure
 (19) Varies by product
 (20) Yield curve, 10%; security selection, 45%
 (21) Investment themes
 (22) Investment grade/high yield positioning
 (23) As at 31/12/18
 (24) Target
 (25) Includes €4bn of short term fixed income and money market
 (26) Since inception in 2002
 (27) Includes derivative positions
 (28) Local market allocation
 (29) 10-year historical
 (30) Historical range
 (31) Economic outlook
 (32) Assets, performance and allocation data are reflective of the firm's dedicated stand-alone Investment Grade Credit Strategy Representative Portfolio. In total, the firm manages over €24bn in investment grade corporate debt across various investment portfolios
 (33) 5-year
 (34) Trading
 (35) Market selection, 25%; security selection, 15%; yield curve positioning, 5%
 (36) Relates to dedicated investment grade mandates
 (37) Sector/industry
 (38) Yield curve positioning
 (39) PFI
 (40) Jennison
 (41) Global
 (42) Trading and execution
 (43) Invested in institutional funds
 (44) Active sector allocation and credit analysis
 (45) Including internally managed assets, total AUM in investment grade credit strategies is €17,808m