sectors	issuers
Low Beta	6
TMT/ AUTO	8
REIT	6
Energy	4
UTILS	11
missing	1

	ticker	short spread	long spread	curve per	r rating	curve change (14d)	curve change (30d)	sector
Low Beta	SOLBBB	285	328	78	BB+	-4	-14	Low Beta
	DBOERS	24	157	21	NR	5	5	Low Beta
	BAYNGR	308	349	131	BB+	1	2	Low Beta
	MRKGR	187	245	131	BBB	2	3	Low Beta
	DBHNGR	196	206	2	BBB+	2	0	Low Beta
	AKEFP	305	294	13 13 2 5 9	BBB-	-7	4	Low Beta
	av	218	263	20		0	0	
	stDev	99	68	28		4	7	
TMT/ AUTO	SESGFP	319	437	57	ВВ	-1	8	TMT/ AUTO
	ORAFP	195	227	12	BBB-	1	7	TMT/ AUTO
	TELIAS	234	246	4	BBB-	-4	-8	TMT/ AUTO
	IFXGR	341	370	91	NR	4	5	TMT/ AUTO
	VW	371	405	5	BBB-	3	-1	TMT/ AUTO
	BERTEL	329	367	91	BB+	10	8	TMT/ AUTO
	TELEFO	366	383	5	BB	9	11	TMT/ AUTO
	VOD	296	310	B	BB+	6	3	TMT/ AUTO
	av	306	343	13		4	4	
	st Dev	59	70	17		4	6	
REIT	GYCGR	252	317	46	■ BBB-	-1	-17	REIT
	ACFP	646	684	38	BB	21	47	REIT
	AKFAST	393	425	12 🔳	NR	2	0	REIT
	SBBBSS	479	495	21	BB	4	62	REIT
	CPIPGR	535	550	8 🗓	BB+	3	-10	REIT
	ULFP	650	546	-41	BBB	17	1	REIT
	av	492	503	14		8	14	
	st Dev	140	114	28		8	29	
Energy	REPSM	382	406	25	■ BB+	-4	-6	Energy
	BPLN	328	367	13	BBB+	3	_	Energy
	TOTAL	220	235	5	A-	0	- 5	Energy
	OMVAV	285	290	3	BBB	12	4	Energy
UTILS	EDPPL	314	340	2.2	■ BB	95	73	UTILS
	NTGYSM	305	332	19	BB+	-4	9	UTILS
	EDF	351	369	1	BB+	-13	5	UTILS
	ENELIM	257	303	15	BBB-	2	-3	UTILS
	SEVFP	249	287	9	NR	-2	-2	UTILS
	NGGLN	235	263	10	BBB-	0	-6	UTILS
	ORSTED	182	203	10	BB+	1	0	UTILS
	ENBW	209	233	9	BBB-	1	0	UTILS
	IBESM	209	207	- <u>i</u>	BBB-	4	-3	UTILS
	ENGIFP	236	245	4	BBB	13	20	UTILS
	RWE	297	279		BB	3	1	UTILS
	174477	211	413	=	טט	J	±	ОТТПО

issuers	bonds
VW	11
TELEFO	8
TOTAL	6
ENBW	6
ORAFP	5
ENGIFP	5
EDF	5
SOLBBB	4
BAYNGR	4
MRKGR	4
REPSM	4
ENELIM	4
ORSTED	4
AKEFP	3
ERFFP	3
OMVAV	3
SEVFP	3
IBESM	3
EDPPL	3
ACFP	3
ARNDTN	3
GYCGR	3

short ticker	long ticker	-	•	-	curve per year	(14d)	(30d)	min		_
•					1					0.76
•	= = = =					-				0.70
•						-				0.71
•						•	-			0.15
•							_	-		0.57
•						-			•	0.25
•					11	•	-	-		0.80
•					4	-	-			0.04
•		423	405	0.8		8	_			1.03
whole cur VW 2 1/2 PERP nc-22	VW 4 5/8 PERP nc-28	363	419	6.3	9	1	-4			
whole cur VW 2.7 PERP nc-22	VW 3 7/8 PERP nc-29	371	423	6.5	8	0	-	41	88	0.23
long end VW 4 5/8 PERP nc-26	VW 3 1/2 PERP nc-30	397	405	4.0	2	1	0	-46	42	0.62
pairPasis TELEEO 3 3// DEDD no 22	TELEEO 2 5/8 DEDD no 23	3/12	360	1.0	10 🛅	111	123	307	192	0.72
•										
•										0.66
•										0.74
•					_					0.76
•										
•		361	384	0.4	59	-10	27	2	47	0.46
whole cur TELEFO 2 5/8 PERP nc-23 whole cur TELEFO 3 PERP nc-23 long end TELEFO 5 7/8 PERP nc-24	TELEFO 3 7/8 PERP nc-26 TELEFO 2 7/8 PERP nc-27 TELEFO 2 7/8 PERP nc-27	360 367 354	396 384	3.3 3.8 3.2	11 4	-12 -1	-11 10	3 -127	56 78	0.62 0.70
	pairBasis VW 3 3/4 PERP nc-21 pairBasis VW 2 1/2 PERP nc-22 pairBasis VW 2 1/2 PERP nc-22 pairBasis VW 5 1/8 PERP nc-23 pairBasis VW 3 3/8 PERP nc-24 pairBasis VW 3 1/2 PERP nc-25 pairBasis VW 4 5/8 PERP nc-26 pairBasis VW 4 5/8 PERP nc-27 pairBasis VW 4 5/8 PERP nc-28 pairBasis VW 3 7/8 PERP nc-29 whole cur VW 2 1/2 PERP nc-22 whole cur VW 2.7 PERP nc-22 long end VW 4 5/8 PERP nc-26 pairBasis TELEFO 3 3/4 PERP nc-23 pairBasis TELEFO 3 PERP nc-23 pairBasis TELEFO 3 PERP nc-23 pairBasis TELEFO 3 7/8 PERP nc-24 pairBasis TELEFO 3 7/8 PERP nc-24 pairBasis TELEFO 2 5/8 PERP nc-26 whole cur TELEFO 2 5/8 PERP nc-27 whole cur TELEFO 3 PERP nc-23 whole cur TELEFO 3 PERP nc-23	pairBasis VW 3 3/4 PERP nc-21 pairBasis VW 2 1/2 PERP nc-22 pairBasis VW 2 1/2 PERP nc-22 pairBasis VW 2 1/2 PERP nc-22 pairBasis VW 2 1/8 PERP nc-23 pairBasis VW 3 3/8 PERP nc-23 pairBasis VW 3 3/8 PERP nc-24 pairBasis VW 3 1/2 PERP nc-25 pairBasis VW 3 1/2 PERP nc-25 pairBasis VW 4 5/8 PERP nc-26 pairBasis VW 4 5/8 PERP nc-26 pairBasis VW 4 5/8 PERP nc-27 pairBasis VW 4 5/8 PERP nc-27 pairBasis VW 4 5/8 PERP nc-28 pairBasis VW 3 7/8 PERP nc-29 whole cur VW 2 1/2 PERP nc-22 whole cur VW 2 1/2 PERP nc-22 long end VW 4 5/8 PERP nc-22 pairBasis TELEFO 3 3/4 PERP nc-23 pairBasis TELEFO 3 7/8 PERP nc-23 pairBasis TELEFO 3 7/8 PERP nc-24 pairBasis TELEFO 4 3/8 PERP nc-24 pairBasis TELEFO 2 5/8 PERP nc-24 pairBasis TELEFO 3 7/8 PERP nc-24 pairBasis TELEFO 2 5/8 PERP nc-27 TELEFO 2 7/8 PERP nc-27	short ticker long ticker spread pairBasis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 238 pairBasis VW 2 1/2 PERP nc-22 VW 2 1/2 PERP nc-22 363 pairBasis VW 2.7 PERP nc-22 VW 5 1/8 PERP nc-22 371 pairBasis VW 5 1/8 PERP nc-23 VW 3 3/8 PERP nc-24 355 pairBasis VW 3 3/8 PERP nc-24 VW 3 1/2 PERP nc-25 392 pairBasis VW 3 1/2 PERP nc-25 VW 4 5/8 PERP nc-26 403 pairBasis VW 4 5/8 PERP nc-26 VW 3 7/8 PERP nc-27 397 pairBasis VW 3 7/8 PERP nc-27 VW 4 5/8 PERP nc-28 408 pairBasis VW 4 5/8 PERP nc-28 VW 3 7/8 PERP nc-29 419 pairBasis VW 3 7/8 PERP nc-29 VW 3 1/2 PERP nc-29 423 whole cur VW 2 1/2 PERP nc-22 VW 4 5/8 PERP nc-28 363 whole cur VW 2.7 PERP nc-22 VW 3 1/2 PERP nc-29 371 long end VW 4 5/8 PERP nc-22 TELEFO 2 5/8 PERP nc-23 360 pairBasis TELEFO 3 PERP nc-23 TELEFO 3 PERP nc-23 360 pairBasis TELEFO 5 7/8 PERP nc-24 TELEFO 3 7/8 PERP nc-24 367 pairBasis TELEFO 3 7/8 PERP nc-26 TEL	short ticker long ticker spread spread pairBasis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 238 363 pairBasis VW 2 1/2 PERP nc-22 VW 2.7 PERP nc-22 363 371 pairBasis VW 2.7 PERP nc-22 VW 5 1/8 PERP nc-23 371 355 pairBasis VW 5 1/8 PERP nc-23 VW 3 3/8 PERP nc-24 355 392 pairBasis VW 3 3/8 PERP nc-24 VW 3 1/2 PERP nc-25 392 403 pairBasis VW 3 1/2 PERP nc-25 VW 4 5/8 PERP nc-26 403 397 pairBasis VW 4 5/8 PERP nc-26 VW 3 7/8 PERP nc-27 408 419 pairBasis VW 3 7/8 PERP nc-27 VW 4 5/8 PERP nc-28 408 419 pairBasis VW 3 7/8 PERP nc-28 VW 3 7/8 PERP nc-29 419 423 pairBasis VW 2 1/2 PERP nc-29 VW 3 1/2 PERP nc-29 419 423 whole cur VW 2 1/2 PERP nc-22 VW 4 5/8 PERP nc-28 363 419 whole cur VW 2 7/2 PERP nc-22 VW 3 1/2 PERP nc-29 371 423 long end VW 4 5/8 PERP nc-26 VW 3 1/2 PERP nc-23 360 367 pairBasis TELEFO 3 7/8 PERP nc-23<	short ticker long ticker spread spread yrs pairBasis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 238 363 1.0 pairBasis VW 2 1/2 PERP nc-22 VW 2 1/2 PERP nc-22 363 371 0.7 pairBasis WW 2.7 PERP nc-22 VW 5 1/8 PERP nc-23 371 355 0.7 pairBasis WW 5 1/8 PERP nc-22 VW 3 1/8 PERP nc-24 355 392 0.8 pairBasis WW 3 3/8 PERP nc-24 VW 3 1/2 PERP nc-25 392 403 1.0 pairBasis WW 3 1/2 PERP nc-25 VW 4 5/8 PERP nc-26 403 397 0.8 pairBasis WW 4 5/8 PERP nc-26 VW 3 7/8 PERP nc-27 397 408 1.2 pairBasis VW 3 7/8 PERP nc-27 VW 4 5/8 PERP nc-28 408 419 1.0 pairBasis VW 3 7/8 PERP nc-28 VW 3 7/8 PERP nc-29 419 423 1.0 pairBasis VW 3 7/8 PERP nc-29 VW 3 1/2 PERP nc-30 423 405 0.8 whole cur VW 2 1/2 PERP nc-22 VW 3 7/8 PERP nc-28 363 419 6.3 whole cur VW 2 7/2 PERP nc-22 VW 3 7/8 PERP nc-28 37/8 PERP nc-29 37/1 423 6.5 long end VW 4 5/8 PERP nc-23 TELEFO 2 5/8 PERP nc-23 360 367 0.5 pairBasis TELEFO 3 PERP nc-23 TELEFO 3 PERP nc-23 360 367 0.5 pairBasis TELEFO 5 7/8 PERP nc-23 TELEFO 3 7/8 PERP nc-24 367 354 0.6 pairBasis TELEFO 3 7/8	short ticker long ticker spread spread yrs per year pairBasis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 238 363 1.0 126	short ticker long ticker spread spread spread yrs curve per year (14d) pairBasis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 238 363 1.0 126 -26 pairBasis VW 2 1/2 PERP nc-22 VW 2 1/2 PERP nc-22 363 371 0.7 13 5 pairBasis VW 2 1/2 PERP nc-22 VW 5 1/8 PERP nc-23 371 355 0.7 23 5 pairBasis VW 5 1/8 PERP nc-23 VW 3 3/8 PERP nc-24 355 392 0.8 48 1 pairBasis VW 3 3/8 PERP nc-24 VW 3 1/2 PERP nc-25 392 403 1.0 11 -2 pairBasis VW 3 7/8 PERP nc-25 VW 4 5/8 PERP nc-26 403 397 0.8 4 4 pairBasis VW 3 7/8 PERP nc-25 VW 4 5/8 PERP nc-27 397 408 1.2 9 1 pairBasis VW 4 5/8 PERP nc-26 VW 3 7/8 PERP nc-28 408 419 1.0 11 -1 pairBasis VW 3 7/8 PERP nc-28 VW 3 7/8 PERP nc-29 419 423 1.0 4 -2 pairBasis TELEFO	short ticker long ticker spread spread spread yrs curve per year (14d) (30d) change change per year (14d) (30d) pairBasis WW 3 3/4 PERP nc-21 WW 2 1/2 PERP nc-22 238 363 1.0 126 -26 52 pairBasis WW 2 1/2 PERP nc-22 WW 2 1/2 PERP nc-22 363 371 0.7 13 5 -12 pairBasis WW 5 1/8 PERP nc-22 WW 5 1/8 PERP nc-23 WW 3 3/8 PERP nc-24 355 392 0.8 48 1 4 pairBasis WW 3 3/8 PERP nc-24 WW 3 1/2 PERP nc-25 392 403 1.0 11 -2 - pairBasis WW 3 7/8 PERP nc-24 WW 3 1/2 PERP nc-26 403 397 0.8 4 -1 -4 - pairBasis WW 3 7/8 PERP nc-25 WW 4 5/8 PERP nc-26 403 397 408 1.2 9 1 -8 pairBasis WW 4 5/8 PERP nc-27 WW 4 5/8 PERP nc-28 408 419 1.0 11 -1 2 pairBasis WW 3 7/8 PERP nc-28 WW 3 1/2 PERP nc-29 371 423 6.5 8	short ticker long ticker spread spread yrs per year (14d) (30d) min yrs per year (14d) (30d) min yrs per year (14d) (30d) min yrs	short ticker long ticker spread spread yrs spread yrs per year (14d) (30d) min max grain Basis VW 3 3/4 PERP nc-21 VW 2 1/2 PERP nc-22 363 371 0.7 126 -26 52 -175 151 pairBasis VW 2 1/2 PERP nc-22 VW 2.7 PERP nc-22 363 371 0.7 127 55 -12 -77 35 pairBasis VW 2.7 PERP nc-22 VW 5 1/8 PERP nc-23 371 355 0.7 128 3 5 -10 -51 30 pairBasis VW 5 1/8 PERP nc-23 VW 3 3/8 PERP nc-24 355 392 0.8 45 1 4 4 -25 63 pairBasis VW 3 3/8 PERP nc-25 VW 4 5/8 PERP nc-26 403 397 0.8 45 1 4 -25 63 pairBasis VW 3 1/2 PERP nc-25 VW 4 5/8 PERP nc-26 403 397 0.8 45 1 -2 - 14 1 pairBasis VW 4 5/8 PERP nc-25 VW 4 5/8 PERP nc-27 397 408 1.2 9 1 -8 -3 53 pairBasis VW 4 5/8 PERP nc-27 VW 4 5/8 PERP nc-28 408 419 1.0 11 -1 2 -5 32 75 pairBasis VW 4 5/8 PERP nc-29 VW 3 7/8 PERP nc-29 419 423 1.0 4 -2 - 3 25 pairBasis VW 3 7/8 PERP nc-29 VW 3 7/8 PERP nc-29 419 423 1.0 4 -2 - 3 25 pairBasis VW 3 7/8 PERP nc-29 VW 3 7/8 PERP nc-29 371 423 6.5 8 0 - 41 88 long end VW 4 5/8 PERP nc-22 VW 3 7/8 PERP nc-28 363 419 6.3 9 1 -4 -169 159 whole cur VW 2 7/2 PERP nc-22 VW 3 7/8 PERP nc-29 371 423 6.5 8 0 - 41 88 long end VW 4 5/8 PERP nc-22 TELEFO 3 PERP nc-29 371 423 6.5 8 0 41 88 long end VW 4 5/8 PERP nc-23 TELEFO 3 PERP nc-23 360 367 0.5 15 1 -213 -223 -104 385 pairBasis TELEFO 2 5/8 PERP nc-23 TELEFO 3 PERP nc-23 360 367 0.5 15 1 -213 -223 -104 385 pairBasis TELEFO 3 PERP nc-23 TELEFO 5 7/8 PERP nc-24 364 367 0.7 18 7 -21 -46 33 pairBasis TELEFO 3 7/8 PERP nc-24 364 367 0.7 18 7 -21 -46 33 pairBasis TELEFO 3 7/8 PERP nc-24 364 367 0.7 18 7 -21 -46 33 pairBasis TELEFO 3 7/8 PERP nc-24 364 367 0.7 18 7 -10 11 -70 16 -74 4 -91 187 pairBasis TELEFO 3 7/8 PERP nc-24 364 367 0.7 18 7 -10 17 -70 16 -74 4 -91 187 pairBasis TELEFO 3 7/8 PERP nc-24 364 367 0.7 18 7 -10 17 27 24 47 47 47 47 47 47 47 47 47 47 47 47 47

			short	long		curve	change	curve			
	short ticker	long ticker		spread	vrs	per year		(30d)	min	may	%-ile
total	pairBasis TOTAL 2 1/4 PERP nc-21	TOTAL 3 7/8 PERP nc-22	222	209	1.2	111	-38	-3	-227		0.70
A-	pairBasis TOTAL 2 1/41 ERF nc-22	TOTAL 2.708 PERP nc-23	209	220	1.0	11	-2	-2	-129		0.70
Λ-	pairBasis TOTAL 3.7/01 ERF nc-23	TOTAL 1 3/4 PERP nc-24	220	231	0.9	13	_	4	-38		0.62
	pairBasis TOTAL 2.7661 ERI 11c-23	TOTAL 1 5/41 ERF nc-25	231	236	0.9	5	-3	-21	-11		0.02
	pairBasis TOTAL 1 5/4 FERP nc-25	TOTAL 3.369 PERP nc-26	236	235	1.6	0	-3	-2	-119		0.84
	pail basis 101AL 2 5/01 ENT 110-25	101AL 3.3031 LIVI 110-20	230	200	1.0	٠,	-5	-2	-113	21	0.04
	whole cur TOTAL 3 7/8 PERP nc-22	TOTAL 2 5/8 PERP nc-25	209	236	2.8	10	-2	-6	-142	79	1 0.76
	1 TOTAL 0 700 DEDD 00	TOTAL 0.000 DEDD 00	000	005	0.4	_	•	_	404	- 4	- 10.75
	long end TOTAL 2.708 PERP nc-23	TOTAL 3.369 PERP nc-26	220	235	3.4	5	-3	-5	-104	54	1 0.75
enbw	pairBasis ENBW 3 5/8 04/02/76 nc-21	ENBW 3 5/8 04/02/76 nc-21	192	192	0.0	_	_	_			
BBB-	pairBasis ENBW 3 5/8 04/02/76 nc-21	ENBW 3 3/8 04/05/77 nc-22	192	187	0.8	-7	27	-1	-11	133	0.04
	pairBasis ENBW 3 3/8 04/05/77 nc-22	ENBW 1 1/8 11/05/79 nc-24	187	209	2.6	9 🚃	-10	-13	-247	57	0.89
	pairBasis ENBW 1 1/8 11/05/79 nc-24	ENBW 1 7/8 06/29/80 nc-26	209	235	1.7	15	1	-	22	26	0.86
	pairBasis ENBW 1 7/8 06/29/80 nc-26	ENBW 1 5/8 08/05/79 nc-27	235	233	1.1	-1	0	-	-3	-1	1 0.71
	whole cur ENBW 3 5/8 04/02/76 nc-21	ENBW 1 5/8 08/05/79 nc-27	192	233	6.1	7	-1	-6	-264	108	1 0.82
	long end ENBW 1 1/8 11/05/79 nc-24	ENBW 1 5/8 08/05/79 nc-27	209	233	2.8	9	1	0	-45	42	0.80
orafp	pairBasis ORAFP 4 PERP nc-21	ORAFP 5 1/4 PERP nc-24	140	195	2.4	23	-4	-10	-43	102	1 0.67
BBB-	pairBasis ORAFP 5 1/4 PERP nc-24	ORAFP 2 3/8 PERP nc-25	195	212	0.9	19	3	14		36	0.68
	pairBasis ORAFP 2 3/8 PERP nc-25	ORAFP 5 PERP nc-26	212	227	1.7	9	-2	4		37	0.61
	pairBasis ORAFP 5 PERP nc-26	ORAFP 1 3/4 PERP nc-26	227	224	0.2	-16	10	79	-35		0.28
	F										
	whole cur ORAFP 4 PERP nc-21	ORAFP 1 3/4 PERP nc-26	140	224	5.2	16	-2	2	8	143	1 0.56
	long end ORAFP 2 3/8 PERP nc-25	ORAFP 1 3/4 PERP nc-26	212	224	1.9	6	-1	12	-24	111	0.27
engifp	pairBasis ENGIFP 4 3/4 PERP nc-21	ENGIFP 1 3/8 PERP nc-23	153	236	1.5	5 5	-14	-27	-33	139	1 0.68
BBB	pairBasis ENGIFP 1 3/8 PERP nc-23	ENGIFP 3 7/8 PERP nc-24	236	227	1.4	. 7	7	26	-46	58	0.36
	pairBasis ENGIFP 3 7/8 PERP nc-24	ENGIFP 3 1/4 PERP nc-24	227	235	0.5	6	16	6	-24	28	0.61
	pairBasis ENGIFP 3 1/4 PERP nc-24	ENGIFP 1 5/8 PERP nc-25	235	245	0.4	27	-9	20	-15	45	0.41
	whole cur ENGIFP 4 3/4 PERP nc-21	ENGIFP 1 5/8 PERP nc-25	153	245	3.7	25	-2	1	17	138	1 0.62
	long end ENGIFP 3 7/8 PERP nc-24	ENGIFP 1 5/8 PERP nc-25	227	245	0.9	21	5	12	-10	35	1 0.61
edf	pairBasis EDF 4 1/8 PERP nc-22	EDF 4 PERP nc-24	222	351	2.5	53	10	26			0.53
BB+	pairBasis EDF 4 PERP nc-24	EDF 5 3/8 PERP nc-25	351	354	0.6	6	-33	-3		36	0.39
	pairBasis EDF 5 3/8 PERP nc-25	EDF 5 PERP nc-26	354	369	1.0	15	6	10	-87		0.78
	pairBasis EDF 5 PERP nc-26	EDF 3 PERP nc-27	369	385	1.6	10	0	19	-112	26	0.93
	whole cur EDF 4 1/8 PERP nc-22	EDF 3 PERP nc-27	222	385	5.6	29	2	18	-68	198	1 0.87

curve curve

solbbb BB+	short ticker pairBasis SOLBBB 5.118 PERP nc-21 pairBasis SOLBBB 5.425 PERP nc-23 pairBasis SOLBBB 4 1/4 PERP nc-23	long ticker SOLBBB 5.425 PERP nc-23 SOLBBB 4 1/4 PERP nc-23 SOLBBB 5.869 PERP nc-24	short spread 295 285 323	long spread 285 323 328	yrs 2.4 0.1 0.5	curve per year i-4 625		curve change (30d) -12 112 -30	min -96 -15 -18	109 64	%-ile ■ 0.42 ■ 0.67 ■ 0.21
	whole cur SOLBBB 5.118 PERP nc-21	SOLBBB 5.869 PERP nc-24	295	328	3.0	11	4	-12	-25	158	0.32
bayngr BB+	pairBasis BAYNGR 2 3/8 04/02/75 nc-22 pairBasis BAYNGR 3 3/4 07/01/74 nc-24 pairBasis BAYNGR 2 3/8 11/12/79 nc-25	BAYNGR 2 3/8 11/12/79 nc-25	308	308 328 349	1.7 0.6 2.5	21 33 8	4 -1 -1	26 -1 2	-128 -75 -104	40	0.83 0.83 0.78
	whole cur BAYNGR 2 3/8 04/02/75 nc-22	BAYNGR 3 1/8 11/12/79 nc-27	271	349	4.9	16	1	11	-288	111	d 0.92
mrkgr BBB	pairBasis MRKGR 2 5/8 12/12/74 nc-21 pairBasis MRKGR 3 3/8 12/12/74 nc-24 pairBasis MRKGR 1 5/8 06/25/79 nc-24 whole cur MRKGR 2 5/8 12/12/74 nc-21	MRKGR 3 3/8 12/12/74 nc-24 MRKGR 1 5/8 06/25/79 nc-24 MRKGR 2 7/8 06/25/79 nc-29 MRKGR 2 7/8 06/25/79 nc-29	209 180 187	180 187 245	3.5 0.2 4.5	31 13 5	-1 -14 1	-6 -82 3	-288 8 -105	111 78	0.76 -0.01 0.89
repsm BB+	pairBasis REPSM 3 7/8 PERP nc-21 pairBasis REPSM 4 1/2 03/25/75 nc-25 pairBasis REPSM 3 3/4 PERP nc-26	REPSM 4 1/2 03/25/75 nc-25 REPSM 3 3/4 PERP nc-26 REPSM 4.247 PERP nc-28	274 382 406	382 406 427	4.0 1.0 2.5	27 25 9	-1 6 0	7 -6 -1	-561 16 16	121 32 27	0.98 0.48 0.54
	whole cur REPSM 3 7/8 PERP nc-21	REPSM 4.247 PERP nc-28	274	427	7.5	21	0	3	104	166	0.80
enelim BBB-	pairBasis ENELIM 2 1/2 11/24/78 nc-23 pairBasis ENELIM 5.451 01/10/74 nc-24 pairBasis ENELIM 3 1/2 05/24/80 nc-25	ENELIM 5.451 01/10/74 nc-24 ENELIM 3 1/2 05/24/80 nc-25 ENELIM 3 3/8 11/24/81 nc-26	257 258 279	258 279 303	0.4 1.1 1.5	3 18 16	12 -2 2	9 -6 -4	-149 1 -71	188	0.89 0.10 0.84
	whole cur ENELIM 2 1/2 11/24/78 nc-23	ENELIM 3 3/8 11/24/81 nc-26	257	303	0.5	15	2	-3	-58	61	a 0.88

orsted BB+ remove the orsted 3 11/15 bond

AKEFP BBB-	short ticker pairBasis AKEFP 4 3/4 PERP nc-20 pairBasis AKEFP 2 3/4 PERP nc-24	long ticker AKEFP 2 3/4 PERP nc-24 AKEFP 1 1/2 PERP nc-25	short spread 212 305	long spread 305 294	yrs 3.6 1.3	curve per year 26	•	curve change (30d) 9	-347	217	%-ile
	whole cur AKEFP 4 3/4 PERP nc-20	AKEFP 1 1/2 PERP nc-25	212	294	5.0	16	-4	7	-383	204	4 0.79
erffp #N/A N/A	pairBasis ERFFP 2 7/8 PERP nc-22 pairBasis ERFFP 4 7/8 PERP nc-23 whole cur ERFFP 2 7/8 PERP nc-22	ERFFP 4 7/8 PERP nc-23 ERFFP 3 1/4 PERP nc-25 ERFFP 3 1/4 PERP nc-25	417 356 417	356 422 422	0.7 2.5 3.3	26 2	19 0	8 -4 -2	-134 -76 -64	90	0.17 0.86 0.18
omvav BBB	pairBasis OMVAV 5 1/4 PERP nc-21 pairBasis OMVAV 2 7/8 PERP nc-24 whole cur OMVAV 5 1/4 PERP nc-21	OMVAV 2 7/8 PERP nc-24 OMVAV 6 1/4 PERP nc-25 OMVAV 6 1/4 PERP nc-25	221 285 221	285 290 290	2.3 1.7 4.0	28 3 17	-1 0	-16 4 -8	-11 -27 -36	41	1 0.62 1 0.48 1 0.68
sevfp NR	pairBasis SEVFP 2 1/2 PERP nc-22 pairBasis SEVFP 2 7/8 PERP nc-24 whole cur SEVFP 2 1/2 PERP nc-22	SEVFP 2 7/8 PERP nc-24 SEVFP 1 5/8 PERP nc-26 SEVFP 1 5/8 PERP nc-26	249 273 249	273 287 287	1.8 2.4 4.2	14 6 9	-3 -1	-10 4 -2		61 34 88	0.70 0.84 0.79
ibesm BBB-	pairBasis IBESM 1 7/8 PERP nc-23 pairBasis IBESM 2 5/8 PERP nc-24 whole cur IBESM 1 7/8 PERP nc-23	IBESM 2 5/8 PERP nc-24 IBESM 3 1/4 PERP nc-24 IBESM 3 1/4 PERP nc-24	209 198 209	198 207 207	1.1 0.6 1.7	14 -1	-2 12 3	-12 14 -3		54 39 37	1 0.54 1 0.62 1 0.63

EDPPL remove the EDPPL 5.375 bond

acfp remove the ACFP 4.125 bond