




























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	short spread	long spread	curve per year	curve change (14d)	curve change (30d)
vw	pairBasis	VW 3 3/4 PERP nc-21	VW 2 1/2 PERP nc-22	238	378	142	34	255
	pairBasis	VW 2 1/2 PERP nc-22	VW 2.7 PERP nc-22	378	381	4	-4	-12
	pairBasis	VW 2.7 PERP nc-22	VW 5 1/8 PERP nc-23	381	352	-21	7	-35
	pairBasis	VW 5 1/8 PERP nc-23	VW 3 3/8 PERP nc-24	352	390	48	-7	-10
	pairBasis	VW 3 3/8 PERP nc-24	VW 3 1/2 PERP nc-25	390	400	10	-10	-
	pairBasis	VW 3 1/2 PERP nc-25	VW 4 5/8 PERP nc-26	400	399	-1	9	-
	pairBasis	VW 4 5/8 PERP nc-26	VW 3 7/8 PERP nc-27	399	408	8	-2	-16
	pairBasis	VW 3 7/8 PERP nc-27	VW 4 5/8 PERP nc-28	408	420	12	8	8
	pairBasis	VW 4 5/8 PERP nc-28	VW 3 7/8 PERP nc-29	420	424	4	-13	-
	pairBasis	VW 3 7/8 PERP nc-29	VW 3 1/2 PERP nc-30	424	397	-5	34	-
	whole curv	VW 2 1/2 PERP nc-22	VW 4 5/8 PERP nc-28	378	420	7	0	-7
	whole curv	VW 2.7 PERP nc-22	VW 3 7/8 PERP nc-29	381	424	7	-1	-
	long end	VW 4 5/8 PERP nc-26	VW 3 1/2 PERP nc-30	399	397	-1	5	2

		short ticker	long ticker	short spread	long spread	curve per year	curve change (14d)	curve change (30d)
telefo	pairBasis	TELEFO 3 3/4 PERP nc-22	TELEFO 2 5/8 PERP nc-23	351	371	21 	159	145
	pairBasis	TELEFO 2 5/8 PERP nc-23	TELEFO 3 PERP nc-23	371	380	18 	-312	-275
	pairBasis	TELEFO 3 PERP nc-23	TELEFO 5 7/8 PERP nc-24	380	363	-30 	1	4
	pairBasis	TELEFO 5 7/8 PERP nc-24	TELEFO 4 3/8 PERP nc-24	363	373	14 	19	5
	pairBasis	TELEFO 4 3/8 PERP nc-24	TELEFO 3 7/8 PERP nc-26	373	402	19 	61	55
	pairBasis	TELEFO 3 7/8 PERP nc-26	TELEFO 2.502 PERP nc-27	402	357	-73 	-140	-145
	pairBasis	TELEFO 2.502 PERP nc-27	TELEFO 2 7/8 PERP nc-27	357	381	63 	10	16
	whole curv	TELEFO 2 5/8 PERP nc-23	TELEFO 3 7/8 PERP nc-26	371	402	9	-14	-14
	whole curv	TELEFO 3 PERP nc-23	TELEFO 2 7/8 PERP nc-27	380	381	0	7	2
	long end	TELEFO 5 7/8 PERP nc-24	TELEFO 2 7/8 PERP nc-27	363	381	6	8	1
total	pairBasis	TOTAL 2 1/4 PERP nc-21	TOTAL 3 7/8 PERP nc-22	186	201	12 	5	-1
	pairBasis	TOTAL 3 7/8 PERP nc-22	TOTAL 2.708 PERP nc-23	201	213	13 	24	-6
	pairBasis	TOTAL 2.708 PERP nc-23	TOTAL 1 3/4 PERP nc-24	213	224	12 	9	-7
	pairBasis	TOTAL 1 3/4 PERP nc-24	TOTAL 2 5/8 PERP nc-25	224	231	8 	6	-9
	pairBasis	TOTAL 2 5/8 PERP nc-25	TOTAL 3.369 PERP nc-26	231	237	3 	0	4
	whole curv	TOTAL 3 7/8 PERP nc-22	TOTAL 2 5/8 PERP nc-25	201	231	11	13	-7
	long end	TOTAL 2.708 PERP nc-23	TOTAL 3.369 PERP nc-26	213	237	7	4	-3
enbw	pairBasis	ENBW 3 5/8 04/02/76 nc-2	ENBW 3 5/8 04/02/76 nc-2	202	202	-	-	-
	pairBasis	ENBW 3 5/8 04/02/76 nc-2	ENBW 3 3/8 04/05/77 nc-2	202	192	-13 	9	-48
	pairBasis	ENBW 3 3/8 04/05/77 nc-2	ENBW 1 1/8 11/05/79 nc-2	192	210	7 	-9	-12
	pairBasis	ENBW 1 1/8 11/05/79 nc-2	ENBW 1 7/8 06/29/80 nc-2	210	233	14 	0	-
	pairBasis	ENBW 1 7/8 06/29/80 nc-2	ENBW 1 5/8 08/05/79 nc-2	233	232	-1	1	-
	whole curv	ENBW 3 5/8 04/02/76 nc-2	ENBW 1 5/8 08/05/79 nc-2	202	232	5	-2	-11
	long end	ENBW 1 1/8 11/05/79 nc-2	ENBW 1 5/8 08/05/79 nc-2	210	232	8	0	0

		short ticker	long ticker	short spread	long spread	curve per year	curve change (14d)	curve change (30d)
orange	pairBasis	ORAFP 4 PERP nc-21	ORAFP 5 1/4 PERP nc-24	159	215	24	 -10	-8
	pairBasis	ORAFP 5 1/4 PERP nc-24	ORAFP 2 3/8 PERP nc-25	215	235	21	 11	9
	pairBasis	ORAFP 2 3/8 PERP nc-25	ORAFP 5 PERP nc-26	235	246	7	 -2	-8
	pairBasis	ORAFP 5 PERP nc-26	ORAFP 1 3/4 PERP nc-26	246	236	-48	 33	66
	whole curv	ORAFP 4 PERP nc-21	ORAFP 1 3/4 PERP nc-26	159	236	15	-2	-2
	long end	ORAFP 2 3/8 PERP nc-25	ORAFP 1 3/4 PERP nc-26	235	236	0	2	0
engifp	pairBasis	ENGIFP 4 3/4 PERP nc-21	ENGIFP 1 3/8 PERP nc-23	157	254	64	 -20	-4
	pairBasis	ENGIFP 1 3/8 PERP nc-23	ENGIFP 3 7/8 PERP nc-24	254	234	-24	 15	3
	pairBasis	ENGIFP 3 7/8 PERP nc-24	ENGIFP 3 1/4 PERP nc-24	234	241	13	 15	6
	pairBasis	ENGIFP 3 1/4 PERP nc-24	ENGIFP 1 5/8 PERP nc-25	241	248	20	 -11	-6
	whole curv	ENGIFP 4 3/4 PERP nc-21	ENGIFP 1 5/8 PERP nc-25	157	248	24	-2	0
	long end	ENGIFP 3 7/8 PERP nc-24	ENGIFP 1 5/8 PERP nc-25	234	248	16	4	1
edf	pairBasis	EDF 4 1/8 PERP nc-22	EDF 4 PERP nc-24	223	327	42	 13	20
	pairBasis	EDF 4 PERP nc-24	EDF 5 3/8 PERP nc-25	327	348	36	 8	2
	pairBasis	EDF 5 3/8 PERP nc-25	EDF 5 PERP nc-26	348	361	13	 7	8
	pairBasis	EDF 5 PERP nc-26	EDF 3 PERP nc-27	361	375	9	 12	22
	whole curv	EDF 4 1/8 PERP nc-22	EDF 3 PERP nc-27	223	375	27	11	17

		short ticker				long ticker				short spread	long spread	curve per year	curve change (14d)	curve change (30d)	
solbbb	pairBasis	SOLBBB	5.118	PERP	nc-21	SOLBBB	5.425	PERP	nc-23	329	301	-11	3	-9	
	pairBasis	SOLBBB	5.425	PERP	nc-23	SOLBBB	4 1/4	PERP	nc-23	301	344	707	47	428	
	pairBasis	SOLBBB	4 1/4	PERP	nc-23	SOLBBB	5.869	PERP	nc-24	344	345	2	-17	-22	
	whole curv	SOLBBB	5.118	PERP	nc-21	SOLBBB	5.869	PERP	nc-24	329	345	5	1	-2	
bayngr	pairBasis	BAYNGR	2 3/8	04/02/75	nc-BAYNGR	3 3/4	07/01/74	nc-282		299		9	9	-4	
	pairBasis	BAYNGR	3 3/4	07/01/74	nc-BAYNGR	2 3/8	11/12/79	nc-299		318		32	3	-19	
	pairBasis	BAYNGR	2 3/8	11/12/79	nc-BAYNGR	3 1/8	11/12/79	nc-318		338		8	-1	-2	
	whole curv	BAYNGR	2 3/8	04/02/75	nc-BAYNGR	3 1/8	11/12/79	nc-282		338		11	3	-5	
mrkgr	pairBasis	MRKGR	2 5/8	12/12/74	nc-MRKGR	3 3/8	12/12/74	nc-2224		183		-12	-7	-19	
	pairBasis	MRKGR	3 3/8	12/12/74	nc-MRKGR	1 5/8	06/25/79	nc-2183		194		46	-47	-63	
	pairBasis	MRKGR	1 5/8	06/25/79	nc-MRKGR	2 7/8	06/25/79	nc-2194		246		12	1	2	
	whole curv	MRKGR	2 5/8	12/12/74	nc-MRKGR	2 7/8	06/25/79	nc-2224		246		3	-4	-10	
repsm	pairBasis	REPSM	3 7/8	PERP	nc-21	REPSM	4 1/2	03/25/75	nc-2265		372		27	-3	27
	pairBasis	REPSM	4 1/2	03/25/75	nc-REPSM	3 3/4	PERP	nc-26		372		18	-12	-	
	pairBasis	REPSM	3 3/4	PERP	nc-26	REPSM	4.247	PERP	nc-28		390		9	2	-
	whole curv	REPSM	3 7/8	PERP	nc-21	REPSM	4.247	PERP	nc-28		265		20	-2	-

		short ticker	long ticker	short spread	long spread	curve per year	curve change (14d)	curve change (30d)
enelim	pairBasis	ENELIM 2 1/2 11/24/78 nc	ENELIM 5.451 01/10/74 nc-270	257	257	-34	-20	-2
	pairBasis	ENELIM 5.451 01/10/74 nc	ENELIM 3 1/2 05/24/80 nc-257	284	284	25	-3	7
	pairBasis	ENELIM 3 1/2 05/24/80 nc	ENELIM 3 3/8 11/24/81 nc-284	306	306	14	3	-4
	whole curv	ENELIM 2 1/2 11/24/78 nc	ENELIM 3 3/8 11/24/81 nc-270	306	306	12	-2	1
orsted	remove the orsted 3 11/15 bond							
AKEFP	pairBasis	AKEFP 4 3/4 PERP nc-20	AKEFP 2 3/4 PERP nc-24	181	300	33	21	-2
	pairBasis	AKEFP 2 3/4 PERP nc-24	AKEFP 1 1/2 PERP nc-25	300	290	5	-5	-4
	whole curv	AKEFP 4 3/4 PERP nc-20	AKEFP 1 1/2 PERP nc-25	181	290	22	14	-3
erffp	pairBasis	ERFFP 2 7/8 PERP nc-22	ERFFP 4 7/8 PERP nc-23	423	384	-55	34	44
	pairBasis	ERFFP 4 7/8 PERP nc-23	ERFFP 3 1/4 PERP nc-25	384	440	22	-3	-5
	whole curv	ERFFP 2 7/8 PERP nc-22	ERFFP 3 1/4 PERP nc-25	423	440	5	5	6
omvav	pairBasis	OMVAV 5 1/4 PERP nc-21	OMVAV 2 7/8 PERP nc-24	227	294	30	-7	11
	pairBasis	OMVAV 2 7/8 PERP nc-24	OMVAV 6 1/4 PERP nc-25	294	296	1	-1	-10
	whole curv	OMVAV 5 1/4 PERP nc-21	OMVAV 6 1/4 PERP nc-25	227	296	17	-5	2
sevfp	pairBasis	SEVFP 2 1/2 PERP nc-22	SEVFP 2 7/8 PERP nc-24	255	280	14	-1	-3
	pairBasis	SEVFP 2 7/8 PERP nc-24	SEVFP 1 5/8 PERP nc-26	280	290	4	-2	-1
	whole curv	SEVFP 2 1/2 PERP nc-22	SEVFP 1 5/8 PERP nc-26	255	290	8	-2	-2

[illegible]