

# BOND FUTURES

WSE – working meeting

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# GENERAL DESCRIPTION OF BOND FUTURES



# POLGB FUTURES ARE SIMILAR TO GERMAN BOND FUTURES

## ■ RXA, OEA, DUA

- 2y,5y,10y
- 100k EUR notional – 10 EUR per tick
- Based on a basket of bonds
- H,M,U,Z maturities
- Physical delivery

RXZ6 ↑163.60		- .42		163.60 / 163.61		158 x 213		Prev 164.02	
At 11:47d		Vol 253258		Op 163.90		Hi 164.06		Lo 163.55	
OpenIn 1491646									
RXZ6 Comdty		Export to Exce		90 Settings				Cheapest-to-Deliver	
EURO-BUND FUTURE Dec16		Price 163.60		Trade 10/26/16		Delivery 12/12/16			
Sort By				Settle 10/28/16		Cheapest IRP -0.504			
Implied Repo ▾		Decreasing ▾				Days 45		Act / 360 ▾	
Cash Security		Price		Source		Conven Yield		Conver Factor	
						Gross Basis		Implied Repo%	
								Actual Repo%	
								Net Basis	
Adjust Value									
1) DBR 1 08/15/25		109.6920		BGN		-0.0965		0.669312	
2) DBR 0 ½ 02/15/26		104.7950		BGN		-0.0152		0.620295	
3) DBR 0 08/15/26		99.4040		BGN		0.0610		0.569104	

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# POLGB FUTURES ARE SIMILAR TO GERMAN BOND FUTURES

## ■ CTD basket for RXZ6

- DLV and CMS functions on Bloomberg

VIEW

B-Basis. C-basis Chg  
H-Horizon bond price  
V-BPV  
S-CTD B.P. Spread  
P-P&L points

CTD Scenario Analysis

CTD Basis0. dec. Stl10/28/16 Dlv12/12/16

PARALLEL YIELD SHIFTS (BP)

-20-1001050

Price: 100.300104.970103.593102.229100.901

Chng: +2.790+1.400+.023-1.341-0.009

cRisk: 13.9713.8413.7113.5713.07

RXZ6

163.57

IssuePriceSrcYieldBasisBasis at Contract Horizon

1) DBR 1 08/15/25109.630BGN-.090.151.000.000.000.000.000

2) DBR 0 1/2 02/15/26104.731BGN-.0083.2693.3793.2853.1933.1022.751

3) DBR 0 08/15/2699.337BGN.0686.2496.6116.4266.2446.0655.376

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# POLGB FUTURES ARE SIMILAR TO GERMAN BOND FUTURES

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## ■ Other countries have also launched their bond futures contracts

- OAT futures (OATA)
- BTP futures (IKA)
- POLGB futures !! (WLSA)
  - ▶ Few differences though
    - Cash settled vs BondSpot Fixing
    - Stable bond basket composition

# BTP FUTURE

IKZ6 <span style="color: green;">↑</span> 140.72 <span style="color: red;">- .40</span>  140.71 / 140.72 103 x 49 Prev 141.12									
At 11:06d Vol 30161 Op 141.05 Hi 141.22 Lo 140.65 OpenIn 285467									
IKZ6 Comdty 1) Actions - 2) Settings Futures Contract Table									
Euro-BTP Future As of 10/26/16 Session First Leg All									
1) Eurex   CEM » Contracts 3 Aggr Vol 30,107 Aggr Open Int 285,509 Length 0									
4 Futures 5 Spreads									
Display • Quoted Val • Yield									
Description ↓	Last	Chg	Settle	Time	Bid	Ask	Open Int	Volume	Yest Settle
1) Dec16	<span style="color: green;">↑</span> 140.72	<span style="color: red;">- .40</span>		11:06	140.71	140.72	285467	30161	141.12
2) Mar17	139.15	<span style="color: red;">- .13</span>		9:57	138.86	138.90	42	2	139.28
3) Jun17		--		10/25	135.71	138.72			139.12

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# OAT FUTURE

OATZ6 ↑158.25    -.33    158.25 / 158.26    49 x 102    Prev 158.58																																																	
At 11:04d Vol 35241    Op 158.44    Hi 158.63    Lo 158.17    OpenIn 270479																																																	
OATZ6 Comdty		1) Actions		2) Settings		Futures Contract Table																																											
Euro-OAT Future		As of 10/26/16		Session		First Leg		All																																									
1) Eurex   CEM »		Contracts 3		Aggr Vol 35,241		Aggr Open Int 270,480		Length 0																																									
4 Futures		9 Spreads																																															
Display    • Quoted Val    • Yield																																																	
<table><tr><th>Description</th><th>Last</th><th>Chg</th><th>Settle</th><th>Time</th><th>Bid</th><th>Ask</th><th>Open Int</th><th>Volume</th><th>Yest Settle</th></tr><tr><td>1) Dec16</td><td>158.25</td><td>-.33</td><td></td><td>11:04</td><td>158.25</td><td>158.26</td><td>270479</td><td>35241</td><td>158.58</td></tr><tr><td>2) Mar17</td><td></td><td>--</td><td></td><td>10/25</td><td>156.09</td><td>156.24</td><td>1</td><td></td><td>156.49</td></tr><tr><td>3) Jun17</td><td></td><td>--</td><td></td><td>10/25</td><td></td><td></td><td></td><td></td><td>156.49</td></tr></table>										Description	Last	Chg	Settle	Time	Bid	Ask	Open Int	Volume	Yest Settle	1) Dec16	158.25	-.33		11:04	158.25	158.26	270479	35241	158.58	2) Mar17		--		10/25	156.09	156.24	1		156.49	3) Jun17		--		10/25					156.49
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2) Mar17		--		10/25	156.09	156.24	1		156.49																																								
3) Jun17		--		10/25					156.49																																								

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# POLGB FUTURE

WLSZ6 116.03 -.58 115.86 / 116.06 50x50 Prev 116.61									
At 10:39d Vol 100 Op 116.23 Hi 116.23 Lo 116.03 OpenIn 102									
WLSZ6 Comdty		1) Actions		2) Settings		Futures Contract Table			
10 Y Treasury Bon		As of		10/26/16		Session		First Leg	
1) WSE   CEM »		Contracts 4		Aggr Vol 100		Aggr Open Int 102		Length 0	
Display		Quoted Val		Yield					
Description		Last	Chg	Settle	Time	Bid	Ask	Open Int	Volume
1) Dec16		116.03	-.58		10:39	115.86	116.06	102	100
2) Mar17			--						
3) Jun17			--						
4) Sep17			--						

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# USE OF BOND FUTURES

# USE OF BOND FUTURES

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- **Short term outright position taking and portfolio hedging**
- **IRS hedging**
- **Country credit exposure**
- **Synthetic repo**
  
- **Main advantages**
  - pricing transparency
  - Liquidity
  - possibility to add leverage to portfolio
  - no repo needed
  - central counterpart

# POLGB LONG TERM FUTURE EXAMPLE

■ [https://www.gpw.pl/kontrakty\\_terminowe#ipk\\_obligacje](https://www.gpw.pl/kontrakty_terminowe#ipk_obligacje)

■ Bloomberg tickers : WLSA, BMWA, WYSA

■ Reuters tickers : 0#FLTBPL, 0#FMTBPL, 0#FSTBPL

■ 100k PLN notional, cash settled

E

WLSZ6 Comdty		7) Export to Excel		98) Settings		Cheapest-to-Deliver			
10 Y Treasury Bon Dec16		Price	116.00	-.03	Trade	10/26/16	Delivery	12/16/16	
Sort By				Settle	10/28/16	Cheapest IRP	1.474		
Implied Repo		Decreasing				Days 49	Act /	365	
Cash Security		Price	Source	Conven Yield	Conver Factor	Gross Basis	Implied Repo%	Actual Repo%	Net Basis
Adjust Value									
1) POLGB 3 ¼ 07/25/25		102.2900	LCPR	2.9477	0.879811	0.232	1.474	0.503	-0.134
2) POLGB 2 ½ 07/25/26		95.6650	LCPR	3.0195	0.812780	1.383	-8.101	0.503	1.113
3) POLGB 2 ½ 07/25/27		93.9600	BGN	3.1715	0.797879	1.406	-8.433	0.503	1.135

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# POLGB LONG TERM FUTURE EXAMPLE

- POLGB 07/25 most likely to be CTD (CMS function)
- Sensi of 07/25 bond 7.72
- Sensi of future 8.77 (sensi bond / conversion factor)

CTD Scenario Analysis											
VIEW		B-Basis.	C-basis	Chg	CTD Basis 0. dec. Stl10/28/16 Dlv12/16/16						
		H-Horizon		bond price							
		V-BPV									
		S-CTD		B.P. Spread							
		P-P&L		points							
		PARALLEL YIELD SHIFTS (BP)									
						-50	0	50	75	100	
						Price:	120.573	116.153	111.927	109.883	107.648
						Chng:	+4.543	+.123	-4.103	-0.147	-8.382
						CRisk:	9.04	8.64	8.27	8.08	9.05
		Basis at Contract Horizon									
r <sup>37</sup> <sub>84</sub> Z6		116.03									
Issue		Price	Src	Yield	Basis						
1)	POLGB 3 1/4 07/25	102.225	LCPR	2.956	.141	.000	.000	.000	.000	.208	
2)	POLGB 2 1/2 07/26	95.665	LCPR	3.020	1.358	1.829	1.308	.829	.604	.581	
3)	POLGB 2 1/2 07/27	93.955	BGN	3.172	1.377	2.218	1.341	.540	.167	.000	

# POLGB LONG TERM FUTURE EXAMPLE

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## ■ Execution

- Through futures broker / direct access
- In case you need to contact SG
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