

### Table of Swap Points TMS Trader

Valid from 2018.04.23-2018.04.29. Swap points are published in the minimum quotation step for the financial instrument.

Instrument	Long swap	Short swap
AUDCAD	-1.8999	-4.4785
AUDCHF	2.8385	-7.5641
AUDJPY	1.7222	-6.5447
AUDNZD	-3.9932	-2.9584
AUDUSD	-2.3974	-2.1427
CADCHF	1.8449	-6.7872
CADJPY	0.5875	-5.6408
CHFJPY	-5.3867	-1.0159
CHFPLN	-32.8634	11.2816
EURAUD	-14.3186	4.4471
EURCAD	-12.0355	2.1726
EURCHF	-2.3223	-4.9765
EURCZK	-153.1697	-14.1205
EURGBP	-4.5082	-0.3031
EURHUF	-16.6063	-11.6801
EURJPY	-4.8526	-2.5735
EURNOK	-63.3576	2.6738
EURNZD	-16.1960	5.4468
EURPLN	-34.2481	9.1638
EURSEK	-29.3875	-41.7820

EURTRY	-252.4584	119.5395
EURUSD	-10.8678	3.8719
EURZAR	-506.1463	97.7792
GBPAUD	-11.5459	1.1025
GBPCAD	-9.0498	-1.4031
GBPCHF	0.9296	-8.6460
GBPJPY	-1.5719	-6.2237
GBPPLN	-26.5303	0.0551
GBPUSD	-8.7414	1.3848
NZDJPY	1.9404	-6.5769
NZDUSD	-1.9520	-2.4104
USDCAD	-1.9900	-5.7925
USDCHF	4.0970	-9.8498
USDCZK	0.2309	-13.4543
USDHUF	2.0513	-24.6243
USDJPY	2.6758	-8.5091
USDNOK	-3.4981	-44.3910
USDPLN	-6.9684	-12.7903
USDSEK	28.0397	-84.3683
USDTRY	-181.3124	73.5215
USDZAR	-338.7994	7.4859
USDMXN	-55.8003	7.9741
XAGUSD	-1.0726	0.6073

XAUUSD	-8.4081	4.7580
COPPER	-0.4413	0.2497
3M	-2.6591	0.0000
AMAZON	-18.6531	0.0000
AIG	-0.6769	0.0000
APPLE	-2.0239	0.0000
AT&T	-0.4233	0.0000
BABA	-2.1875	0.0000
BOEING	-4.1356	0.0000
CHEVRON	-1.4937	0.0000
CISCO	-0.5386	0.0000
CITI	-0.8552	0.0000
COCACOLA	-0.5341	0.0000
EBAY	-0.5154	0.0000
EXXONM	-0.9648	0.0000
FACEBOOK	-2.0309	0.0000
GE	-0.1775	0.0000
GMOTORS	-0.4594	0.0000
GOOGLE	-13.1556	0.0000
IBM	-1.7704	0.0000
INTEL	-0.6293	0.0000
J&J	-1.5466	0.0000
JPMORGAN	-1.3613	0.0000

MCDONALD	-1.9389	0.0000
MICROSFT	-1.1603	0.0000
PFIZER	-0.4473	0.0000
P&G	-0.9013	0.0000
STBUCKS	-0.7084	0.0000
WALMART	-1.0622	0.0000
GOLDMAN	-3.0775	0.0000
UPS	-1.3258	0.0000
ALCOA	-0.7329	0.0000
AMERICANEXP	-1.2309	0.0000
BOA	-0.3695	0.0000
CATERPILLAR	-1.8711	0.0000
SNAP	-0.1856	0.0000
DISNEY	-1.2241	0.0000
FORD	-0.1320	0.0000
FEDEX	-3.0186	0.0000
HARLEY-DAVI	-0.5011	0.0000
HP	-0.2111	0.0000
NIKE	-0.8071	0.0000
PEPSI	-1.2517	0.0000
PM	-1.0291	0.0000
TWITTER	-0.3897	0.0000
VISA	-1.5168	0.0000

PAYPAL	-0.9616	0.0000
TESLA	-3.5444	0.0000
NETFLIX	-4.0032	0.0000
BASF	-5.0374	0.0000
DTELEKOM	-0.8184	0.0000
ALLIANZ	-11.3129	0.0000
BAYER	-5.7293	0.0000
BEIERSDO	-5.3312	0.0000
DAIMLERC	-3.7813	0.0000
DBANK	-0.6762	0.0000
SIEMENS	-6.2918	0.0000
LUFTHANS	-1.5342	0.0000
CECONOMY	-0.5531	0.0000
ADIDAS	-12.3516	0.0000
BMW	-5.2974	0.0000
COMMERZBANK	-0.6335	0.0000
CONTINENTAL	-12.8237	0.0000
HENKEL	-5.9747	0.0000
RWE	-1.2410	0.0000
THYSSEN	-1.3226	0.0000
VOLKSWAGEN	-9.8276	0.0000
BARCLAYS	-1.7836	0.0000
GSK	-11.8700	0.0000

M&S	-2.3388	0.0000
RBS	-2.2840	0.0000
ROLLS-ROYCE	-7.1160	0.0000
RIOTINTO	-33.2049	0.0000
SHELL	-20.7427	0.0000
STAN	-6.3279	0.0000
TESCO	-1.9883	0.0000
UNILEVER	-31.9757	0.0000
VODAFONE	-1.7487	0.0000
SANTANDER	-0.3212	0.0000
TELEFONICA	-0.4829	0.0000
BBVA	-0.3831	0.0000
IBERDOLA	-0.3640	0.0000
REPSOL	-0.9175	0.0000
CAIXABANK	-0.2355	0.0000
ABERTIS	-1.0658	0.0000
GASNATURAL	-1.1955	0.0000
REDELECTRIC	-0.9490	0.0000
GRIFOLS	-1.3657	0.0000
BANKINTER	-0.5039	0.0000
MAPFRE	-0.1673	0.0000
ACS	-1.9947	0.0000
AMADEUS	-3.5673	0.0000

INDITEX	-1.4339	0.0000
ACERINOX	-0.7100	0.0000
AENA	-9.8306	0.0000
BANKIA	-0.2140	0.0000
IAG	-0.4070	0.0000
SACYR	-0.1357	0.0000
TECNICAS	-1.4468	0.0000
ASHR.ETF	-0.3623	-0.0497
DBA.ETF	-0.2299	-0.0315
DBC.ETF	-0.2133	-0.0293
EEM.ETF	-0.5775	-0.0792
EFA.ETF	-0.8675	-0.1190
EWA.ETF	-0.2709	-0.0372
EWV.ETF	-0.6378	-0.0875
EWY.ETF	-0.9103	-0.1249
EWZ.ETF	-0.5271	-0.0723
FXI.ETF	-0.5672	-0.0778
GLD.ETF	-1.5464	-0.2121
HYG.ETF	-1.0492	-0.1439
IVV.ETF	-3.2793	-0.4498
IYR.ETF	-0.9031	-0.1239
OIH.ETF	-0.3277	-0.0450
SLV.ETF	-0.1970	-0.0270

SPY.ETF	-3.2568	-0.4467
SSO.ETF	-1.3136	-0.1802
SVXY.ETF	-0.1495	-0.0205
TBT.ETF	-0.4673	-0.0641
VNQ.ETF	-0.9044	-0.1241
VXX.ETF	-0.5177	-0.0710
XHB.ETF	-0.4821	-0.0661
XLB.ETF	-0.7206	-0.0988
XLE.ETF	-0.8953	-0.1228
XLF.ETF	-0.3406	-0.0467
XLI.ETF	-0.9232	-0.1266
XLP.ETF	-0.6166	-0.0846
XLU.ETF	-0.6142	-0.0843
XLV.ETF	-1.0025	-0.1375
XLY.ETF	-1.2576	-0.1725
AUDCAD.	-1.0856	-3.6643
AUDCHF.	3.4600	-6.9425
AUDJPY.	2.4111	-5.8558
AUDNZD.	-3.1058	-2.0709
AUDUSD.	-1.7609	-1.5063
CADCHF.	2.4810	-6.1509
CADJPY.	1.2925	-4.9358
CHFJPY.	-4.4632	-0.0924



CHFPLN.	-2.9959	1.4187
EURAUD.	-12.9845	5.7813
EURCAD.	-10.7320	3.4762
EURCHF.	-1.3270	-3.9812
EURGBP.	-3.7833	0.4219
EURJPY.	-3.7497	-1.4706
EURNOK.	-55.3375	10.6951
EURNZD.	-14.7752	6.8678
EURPLN.	-3.0779	1.2633
EURSEK.	-20.7440	-33.1376
EURTRY.	-250.3732	121.6250
EURUSD.	-9.8489	4.8908
GBPAUD.	-10.0334	2.6151
GBPCAD.	-7.5719	0.0749
GBPCHF.	2.0579	-7.5176
GBPJPY.	-0.3215	-4.9732
GBPNZD.	-11.7663	3.5963
GBPPLN.	-2.2598	0.3989
GBPUSD.	-7.5862	2.5401
NZDUSD.	-1.3545	-1.8128
USDCAD.	-0.9239	-4.7264
USDCHF.	4.9109	-9.0358
USDHKD.	0.8715	-31.1567

USDJPY.	3.5778	-7.6071
USDNOK.	3.0609	-37.8309
USDPLN.	-0.4132	-0.9953
USDSEK.	35.1084	-77.2986
USDTRY.	-179.6076	75.2263
GOLD.	-1.0020	0.6779
SILVER.	-7.8549	5.3112
DE30.	-9.0407	-11.8360
US100.	-9.0709	-2.0435
FR40.	-3.8157	-4.9970
US500.	-3.6299	-0.8177
GB100.	-7.0726	-4.9442
US30.	-3.3180	-0.7474
EU50.	-0.2468	-0.3231
ES35.	-0.7081	-0.9283
IT40.	-1.6911	-2.2143
CH20.	-0.5344	-0.9142
BITCOIN	-168.5861	-80.4749

The maximum size of the interest rate margin for calculating swap points has been specified in the TMS EUROPE Fee and Commission Table.

To establish the above-mentioned Swap Points, TMS Brokers applied a margin in the amount of:

TMS Trader	
<b>The amount of interest rate commission in order to swap points calculation</b>	
EURTRY, USDTRY, EURZAR, USDZAR, USDMXN, EURTRY., USDTRY.	4,00%
Equities CFD and ETF	2,50%
Cryptocurrency CFD	5,00%
Other currency pairs with fixed spread and COPPER	0,45%
Other floating currency pairs	0,30%
Floating Indices	3,00%

Formulas for calculating CFD swap points based on currencies, cryptocurrencies, gold, silver and copper (swap points for CFDs based on cryptocurrencies, gold, silver, copper, DE30., US100., FR40., US500., GB100., US30., EU50., ES35., IT40. and CH20. are calculated based on the formula used to determine swap points for currency instruments, with the reservation, however, that the interest rate is determined only for one currency in which the underlying instrument is quoted).

$$\begin{aligned}
 \text{long swap} = & -(spot_{BID} \times \frac{(1 + (\text{deposit rate of quoted currency}_{ASK} + \text{markup}) \times \frac{1}{T})}{(1 + (\text{deposit rate of base currency}_{BID} - \text{markup}) \times \frac{1}{T})} \\
 & - spot_{BID}) \times \text{multiplier}
 \end{aligned}$$

$$\begin{aligned}
 \text{short swap} = & (spot_{ASK} \times \frac{(1 + (\text{deposit rate of quoted currency}_{BID} - \text{markup}) \times \frac{1}{T})}{(1 + (\text{deposit rate of base currency}_{ASK} + \text{markup}) \times \frac{1}{T})} \\
 & - spot_{ASK}) \times \text{multiplier}
 \end{aligned}$$

*long swap* - the value of swap points calculated for long position;

*short swap* – the value of swap points calculated for a short position;

*spot<sub>BID,ASK</sub>* – exchange rate of a given currency pair in the moment of calculating BID or ASK swap points;

*markup – the amount of commission that TMS EUROPE imposes on the interest rate;*

*T - means the number of days according to the convention adopted for a given currency (eg for USD, the year has 360 days, while for PLN 365 days);*

*multiplier - the coefficient resulting from the minimum step of quotations, e.g. for EURUSD, the minimum step of quotations is 0.00001, therefore the multiplier for the calculation of swap points will be 100 000;*

*deposit rate of base/quoted currency  $BID,ASK$  - for calculating swap points, TMS EUROPE accepts quotes from the interbank market based on the instruments presented in the table below:*

Currency	Bloomberg ticker	Day counting convention (T)	Deposit rate
EUR	EUDR1Z CMPN Curncy	360	Euro 1 Week Deposit
USD	USDR1Z CMPN Curncy	360	United States Dollar 1 Week Deposit
PLN	PZDR1Z CMPN Curncy	365	Polish Zloty 1 Week Deposit
CAD	CDDR1Z CMPN Curncy	360	Canadian Dollar 1 Week Deposit
JPY	JYDR1Z CMPN Curncy	360	Japanese Yen 1 Week Deposit
GBP	BPDR1Z CMPN Curncy	365	British Pound 1 Week Deposit
CHF	SFDR1Z Curncy	360	Swiss Franc 1 Week Deposit
AUD	ADDR1Z CMPN Curncy	360	Australian Dollar 1 Week Deposit
NZD	NDDR1Z CMPN Curncy	360	New Zealand Dollar 1 Week Deposit
CZK	CKDR1Z Curncy	360	Czech Koruna 1 Week Deposit

SEK	SKDR1Z Curncy	360	Swedish Krona 1 Week Deposit
NOK	NKDR1Z Curncy	360	Norwegian Krone 1 Week Deposit
ZAR	SADR1Z CURRENCY	360	South African Rand 1 Week Deposit
HUF	HFDR1Z Curncy	360	Hungarian Forint 1 Week Deposit
RON	RNDR1Z CMPN Curncy	360	Romanian Leu 1 Week Deposit
HKD	HDDR1Z Curncy	360	Hong Kong Dollar 1 Week Deposit
TRY	TYDR1Z CMPN Curncy	360	Turish Lira 1 Week Deposit
MXN	MXNI1M CMPN Curncy	360	Mexican Peso 1 Month Froward Implied Yeld

*Example.*

*Calculation for EURUSD*

*spot<sub>BID</sub> : 1,2407*

*spot<sub>ASK</sub> : 1,2408*

*T: 360*

*Markup: 0,45%*

*deposit rate of base currency<sub>BID</sub> : -0,43%*

*deposit rate of base currency<sub>ASK</sub> : -0,375%*

*deposit rate of quoted currency<sub>BID</sub> : 1,46%*

*deposit rate of quoted currency<sub>ASK</sub> : 1,55%*

$$\begin{aligned} \text{long swap} &= - \left( 1,2415 \times \frac{\left( 1 + (1,55\% + 0,45\%) \times \frac{1}{360} \right)}{\left( 1 + ((-0,43\%) - 0,45\%) \times \frac{1}{360} \right)} - 1,2415 \right) \times 100000 \\ &= -9,9258 \end{aligned}$$

$$\begin{aligned} \text{short swap} &= - \left( 1,2416 \times \frac{\left( 1 + (1,46\% - 0,45\%) \times \frac{1}{360} \right)}{\left( 1 + ((-0,375) + 0,45\%) \times \frac{1}{360} \right)} - 1,2416 \right) \times 100000 \\ &= 3,2226 \end{aligned}$$

Formulas for calculation of swap points for CFD based on value of shares and ETF. If for the CFDs based on the value of shares the swap points for the short position are negative, we assume the value 0.

$$\text{long swap} = -\text{spot}_{\text{BID}} \left( (\text{deposit rate} + \text{markup}) \times \frac{1}{T} \right) \times \text{multiplier}$$

$$\text{short swap} = \text{spot}_{\text{ASK}} \left( (\text{deposit rate} - \text{markup}) \times \frac{1}{T} \right) \times \text{multiplier}$$

*long swap* - the value of swap points calculated for long position;

*short swap* – the value of swap points calculated for a short position;

*spot<sub>BID,ASK</sub>* – exchange rate of a given currency pair in the moment of calculating BID or ASK swap points;

*markup* – the amount of commission that TMS EUROPE imposes on the interest rate;

*T* - means the number of days according to the convention adopted for a given currency (eg for USD, the year has 360 days, while for PLN 365 days);

*multiplier* - the coefficient resulting from the minimum step of quotations, e.g. for EURUSD, the minimum step of quotations is 0.00001, therefore the multiplier for the calculation of swap points will be 100,000;

*deposit rate of quoted currency <sub>BID,ASK</sub> - for calculating swap points, TMS EUROPE accepts quotes from the interbank market based on the instruments presented in the table below:*

Currency	Bloomberg ticker	Day counting convention (T)	Deposit rate
USD	US0001M Index	360	ICE LIBOR USD 1 Month
EUR	EE0001M Index	360	ICE LIBOR EUR 1 Month
PLN	WIBR1M Index	365	GPW Benchmark WIBOR PLN 1 Month
GBP	BP0001M Index	365	ICE LIBOR GBO 1 Month