

# Options on ETFs

## Product Presentation

March 2018



# Your advantage trading Eurex ETF-Options

Equity-, Fixed  
Income- and  
Commodity ETFs

- Eurex offers a broad range of ETF-Options on more than 20 of most liquid ETF's in Europe

On-screen  
liquidity

- Tradable volume of 3m notional on-screen. More volume always available through request towards market makers

Physical delivery

- ETF-Options are settled physical

Option strategies

- The physical settlement of ETF-Options allow an exact realization of strategies in combination with the underlying without additional spread costs of a possible cash-leg transaction

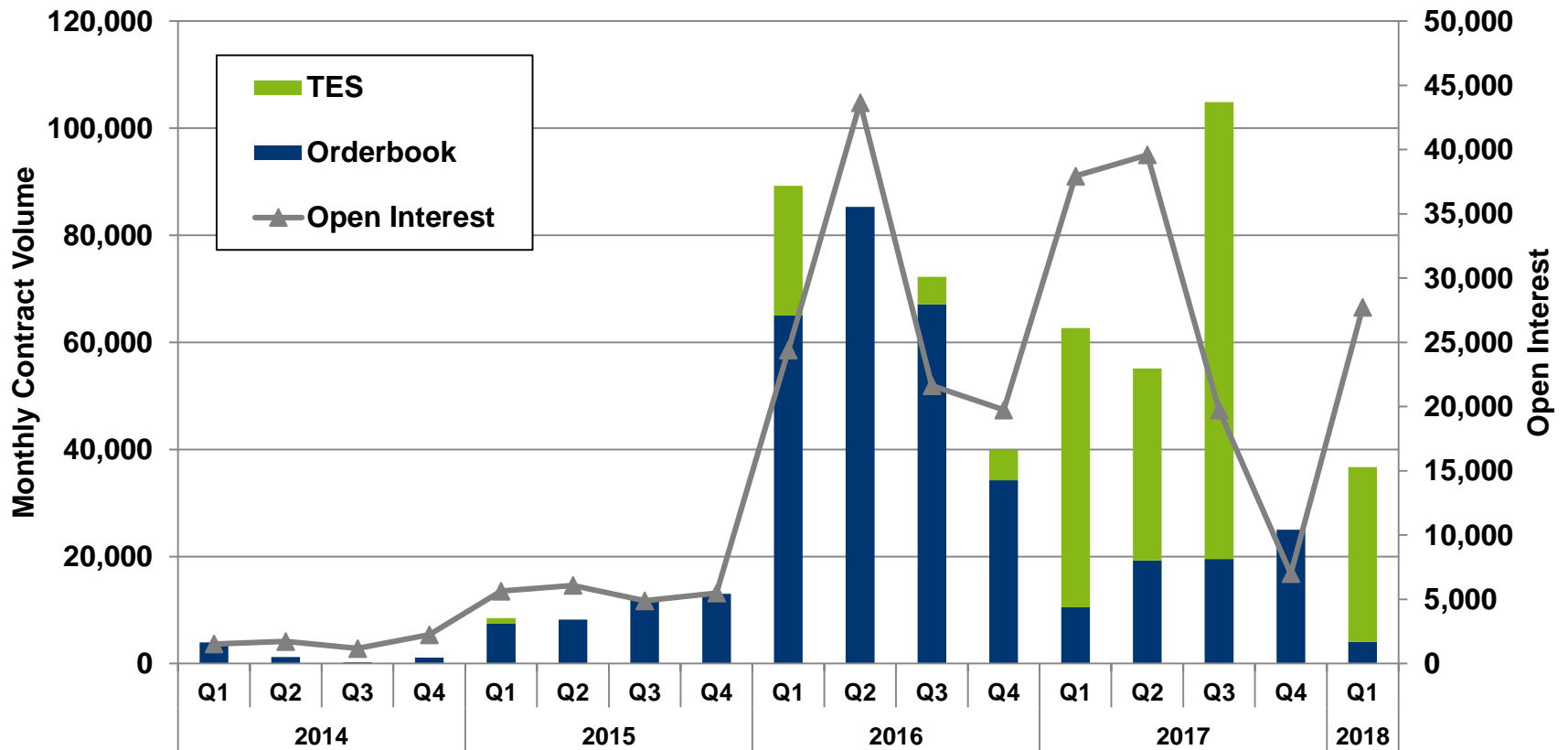
Central  
Counterparty and  
margin efficiency

- Eurex Clearing guarantees a secure settlement as CCP and clients benefit of cross margin efficiencies

# Volume development of ETF-Options

Improved order book liquidity and price picture

## ETF Options

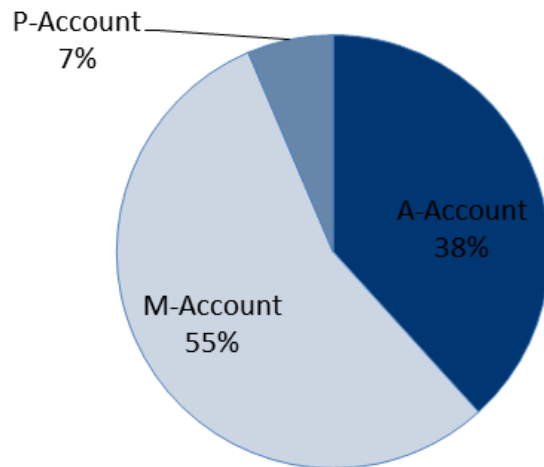


# Volume development of ETF-Options

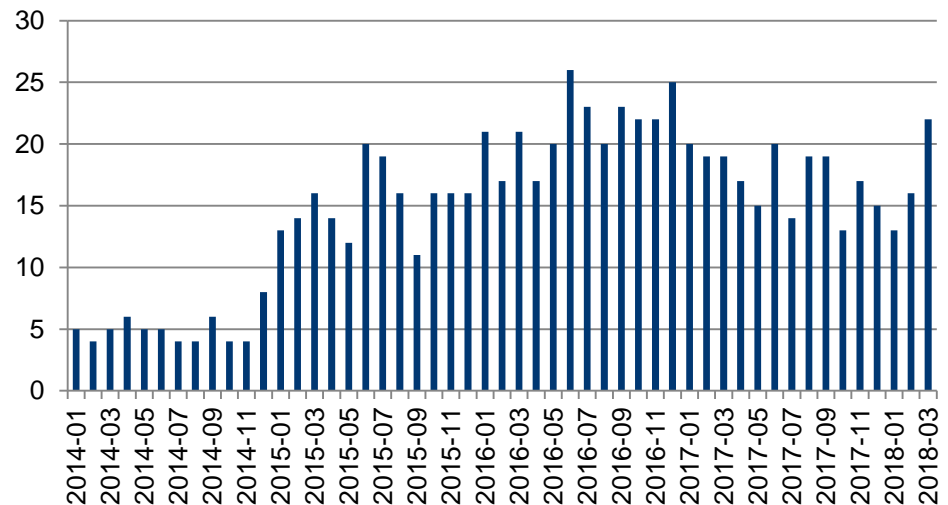
## Number of trading participants and account roles

- Trading volume is broadly supported based on increasing number of market participants
- Good balance between market-making, proprietary and client flow with an A-Account market share of 38%

### Account Distribution



### Number of active trading member per month in ETF Derivatives



# ETF Options offering

Product Name	Underlying ISIN	Underlying Ticker	Underlying Market	Currency	Income	ETF Fact Sheet online	Eurex Contract Codes	Launch date	Contract Size Options	Tick Size Options	Minimum Block Size Options	Exercise	Final Settlement Price	Maturity (months)	Trading Hours
<b>db x-trackers ETFs</b>															
<a href="#">db x-trackers MSCI Emerging Markets TRN</a>	LU0292107645	XMEU GY	XETR	EUR	Acc.	<a href="#">Link</a>	DBX1	Dec-10	100	0.01	100	European	NAV	24	9:00-17:30
<a href="#">db x-trackers MSCI World TRN</a>	LU0274208692	XMWO GY	XETR	EUR	Acc.	<a href="#">Link</a>	DBXW	Dec-10	100	0.01	100	European	NAV	24	9:00-17:30
<a href="#">db x-trackers MSCI Europe TRN</a>	LU0274209237	XMEM GY	XETR	EUR	Acc.	<a href="#">Link</a>	DBXA	Dec-10	100	0.01	100	European	NAV	24	9:00-17:30
<a href="#">db x-trackers Harvest CSI300 UCITS ETF</a>	LU0875160326	RQFI GY	XETR	EUR	Dist.	<a href="#">Link</a>	-	-	-	-	-	-	-	-	-
<b>iShares Equity ETFs</b>															
<a href="#">iShares DAX® UCITS ETF (DE)</a>	DE0005933931	DAXEX GY	XETR	EUR	Dist.	<a href="#">Link</a>	EXS1	Nov-02	100	0.01	2500	American	Close	24	9:00-17:30
<a href="#">iShares EURO STOXX 50® UCITS ETF</a>	IE0008471009	EUN2 GY	XETR	EUR	Dist.	<a href="#">Link</a>	EUN2	Nov-02	100	0.01	5000	American	Close	24	9:00-17:30
<a href="#">iShares SMI® (CH)</a>	CH0008899764	CSSMI SW	XSWX	CHF	Dist.	<a href="#">Link</a>	XMT	Nov-02	100	0.01	1000	American	Close	24	9:00-17:30
<a href="#">iShares EURO STOXX Banks 30-15 UCITS ETF (DE)</a>	DE0006289309	SX7EEX GY	XETR	EUR	Dist.	<a href="#">Link</a>	EXX1	Apr-17	100	0.01	5000	American	Close	24	9:00-17:30
<a href="#">iShares STOXX Europe 600 UCITS ETF (DE)</a>	DE0002635307	SXXPIEX GY	XETR	EUR	Dist.	<a href="#">Link</a>	EXSA	Apr-17	100	0.01	2000	American	Close	24	9:00-17:30
<a href="#">iShares MSCI Europe UCITS ETF (Dist)</a>	IE00B1Y2ZC51	IQQY GY	XETR	EUR	Dist.	<a href="#">Link</a>	IQQY	Apr-17	100	0.01	1500	American	Close	24	9:00-17:30
<a href="#">iShares MSCI Emerging Markets UCITS ETF (Dist)</a>	IE00B0M63177	IDEM LN	XLON	USD	Dist.	<a href="#">Link</a>	IDEM	Apr-17	100	0.01	1000	American	Close	24	9:00-17:30
<a href="#">iShares Core MSCI World UCITS ETF</a>	IE00B4L5Y983	IWDA LN	XLON	USD	Acc.	<a href="#">Link</a>	IWDA	Apr-17	100	0.01	1000	American	Close	24	9:00-17:30
<a href="#">iShares Core S&amp;P 500 UCITS ETF</a>	IE00B5BMR087	CSPX LN	XLON	USD	Acc.	<a href="#">Link</a>	CSPX	Apr-17	100	0.01	750	American	Close	24	9:00-17:30
<a href="#">iShares Core FTSE 100 UCITS (Dist)</a>	IE0005042456	ISF LN	XLON	GBX	Dist.	<a href="#">Link</a>	ISF	Apr-17	1,000	0.25	750	American	Close	24	9:00-17:30
<b>iShares Fixed Income ETFs</b>															
<a href="#">iShares USD High Yield Corporate Bond ETF</a>	IE00B4PY7Y77	IHYU LN	XLON	USD	Dist.	<a href="#">Link</a>	OHYU	Nov-17	100	0.01	100	American	Close	12	9:00-17:30
<a href="#">iShares J.P. Morgan USD Emerging Market Bond ETF</a>	IE00B2NPKV68	IEMB LN	XLON	USD	Dist.	<a href="#">Link</a>	OEMB	Nov-17	100	0.01	100	American	Close	12	9:00-17:30
<a href="#">iShares USD Corporate Bond ETF</a>	IE0032895942	LQDE LN	XLON	USD	Dist.	<a href="#">Link</a>	OQDE	Nov-17	100	0.01	100	American	Close	12	9:00-17:30
<b>Exchange Traded Commodities</b>															
<a href="#">ETFs Crude Oil</a>	GB00B15KXV33	CRUD LN	XLON	USD	None	<a href="#">Link</a>	OCRU	Jul-11	100	0.01	1	European	Close	60	9:00-17:30
<a href="#">ETFs Physical Gold</a>	JE00B1VS3770	PHAU LN	XLON	USD	None	<a href="#">Link</a>	OPHA	Jul-11	100	0.01	1	European	Close	60	9:00-17:30
<a href="#">Xetra-Gold®</a>	DE000A0S9GB0	4GLD GY	XETR	EUR	None	<a href="#">Link</a>	OXGL	Sep-10	1,000	0.01	100	European	Close	60	9:00-17:30

# Comparison Equity Index Options vs. ETF-Options (1/3)

## Product comparison of EURO STOXX50® Options vs. Options on ETF

	EURO STOXX 50® Index Options	iShares EURO STOXX 50® Options
Ticker	OESX	EUN2
Contract value	10 EUR per index point (~30'000 EUR notional)	100 shares of underlying (~3'000 EUR Nominal)
Settlement	Cash	Physical
Min block trade size	1,000 (~30m EUR Nominal)	5,000 (~15m EUR Nominal)
Final settlement price	Index value between 11:50 and 12:00 CET	Closing price of the underlying at the expiration date
Last trading day	Third Friday of the expiration month	
Exercise	European style	American style
Trading mechanism	Price/Time Priority	Pro-rata
Trading hours on the last trading day	09:00 – 12:00 CET	09:00 – 17:30 CET
Trading fees	Order book: EUR 0.30 Eurex TES: EUR 0.30	Order book: EUR 0.30 Eurex TES: EUR 0.40
Bloomberg codes	SX5E Index <OMON>	EUN2 GR Equity <OMON>

# Comparison Equity Index Options vs. ETF-Options (2/3)

## Trading: Example atm Put Option

	iShares EURO STOXX 50®-Options	EURO STOXX 50® Index-Options	Difference
Tradable Volume on-screen <sup>1</sup>	EUR 4,90m notional (1400 contracts)	EUR 11,20m notional (320 contracts)	EUR 6,30m
Bid/Ask spread from mid market (in % of strike price) <sup>1</sup>	0.12%	0.03%	0.09%
Implied volatility <sup>2</sup>	15.50%	15.50%	-

<sup>1</sup>)Average prices per hour Eurex August 2017, Source: Deutsche Börse Statistix

<sup>2</sup>) Live prices 08.09.2017, Source: Bloomberg

# Comparison Equity Index Options vs. ETF-Options (3/3)

## Comparison of 3m implied vol (mid market)

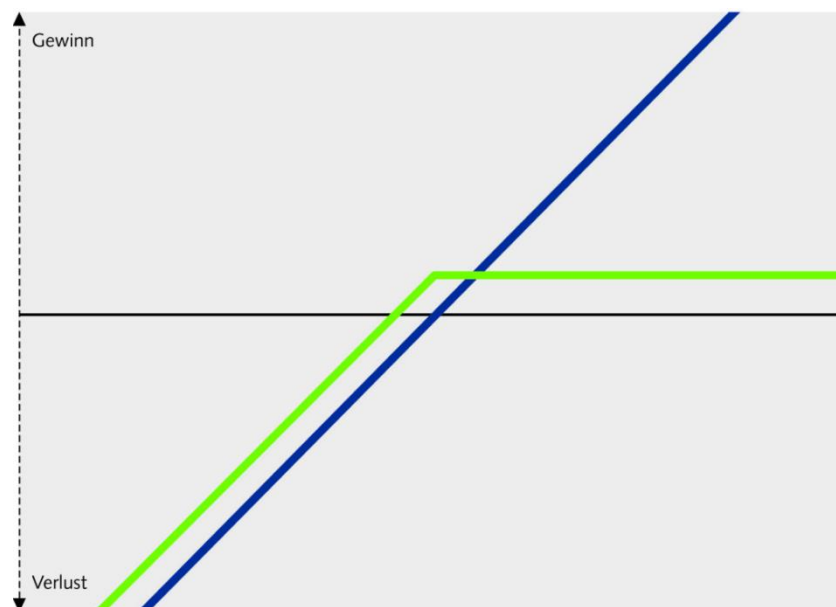


Source: Bloomberg



# Strategies with ETF-Options – Building a position

Building a position via short Put instead of direct purchase



# Strategies with ETF-Options – Building a position

## Building a position via short Put instead of direct purchase

**Sell Put-Options**

- Price underlying: EUR 35.00
- Strike price: EUR 35.00
- Time to maturity: 3 months (Dec 2017)
- Received premium (on-screen): EUR 1.20\*
- Implied volatility: 15.50%\*

Prices as of 8th of September 2017

### Scenario 1: Underlying < Strike price

+100'000 iShares  
at 33.80 EUR

Portfolio profitability:  
0.86% absolute  
3.15% p.a.

### Scenario 2: Underlying > Strike price

+120'000 EUR  
(3.42% / 12.60% p.a.)

Break-Even vs.  
direct purchase:  
EUR 36.20

# Comparison of trading fees

## Comparison of cost of trading with the example of the short put strategy

	iShares EURO STOXX 50®-Options	EURO STOXX 50® Index-Options	Difference
Sell transaction Put Options (Eurex Fee)	EUR 300.00 (1'000 contracts à 0.30 EUR)	EUR 30.00 (100 contracts à 0.30 EUR)	EUR 270.00
Sell transaction Put Options (Broker Fee)	Individual	Individual	-
Bid/Ask Spread Put Option <sup>1</sup>	EUR 4'200.00	EUR 1'050.00	EUR 3'150.00
Implied volatility <sup>1</sup>	15.50%	15.50%	-
Broker fee for Cash-Leg	Individual	Individual	-
Exercise Fee	EUR 300	-	EUR 300.00
Bid/Ask-Spread Cash-Leg transaction <sup>2</sup>	-	EUR 2'364.00	EUR -2'364.00
Execution Risk	No	Yes	Total 0.04% EUR 1'356.00

# Market Maker for ETF Options

## Contact details of Market Makers

Member	Contact person	Contact details	iShares ETF Options					
			EUN2	EXS1	CSPX	ISF	SXXPIEX	SX7EEX
Susquehanna	Tom Karlsson	+353 1 802 8000 <a href="mailto:tom.Karlsson@sig.com">tom.Karlsson@sig.com</a> <a href="mailto:dub-options-sales@sig.com">dub-options-sales@sig.com</a>	✓	✓	✓	✓	✓	✓
			✓	✓				
BNP	Alain de Coudenhove	+33 1 4014 3924 <a href="mailto:Alain.coudenhove@bnpparibas.com">Alain.coudenhove@bnpparibas.com</a>	✓	✓				

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